

DOCUMENT RESUME

ED 109 500

CE 004 361

TITLE Program of Studies: Business Education: Grades 9-12.
INSTITUTION Fairfax County Schools, Va.
PUB DATE 3 Sep 74
NOTE 110p.; For related documents, see CE 004 362-366
EDRS PRICE MF-\$0.76 HC-\$5.70 PLUS POSTAGE
DESCRIPTORS *Business Education; Business Subjects; Career Education; Cooperative Education; Course Content; *Curriculum Guides; Instructional Materials; Office Occupations Education; Resource Materials; Secondary Education; Teaching Methods; Unit Plan

ABSTRACT

The first section of the business education curriculum guide for grades 9-12 provides brief statements concerning program descriptions, goals, course offerings, and objectives. Section 2 provides detailed descriptions and objectives for the following courses: accounting, advanced typewriting, bookkeeping, business economics, business information processing, business law, business management, clerk-typist, introduction to business, office practice and procedures, personal typing, shorthand, stenography, survey of information processing, typewriting, and cooperative office education. Part 3 briefly discusses contemporary teaching strategies; defines individual, discovery, group, unit, systems, multimedia, cocurricular, and laboratory instructional approaches; enumerates and describes instructional techniques within these approaches; and offers detailed outlines specifying suggested teaching and learning strategies, organizational alternatives, and sample units for the following: basic business courses, bookkeeping/accounting/data processing and related training courses, stenographic and related training courses, typewriting and related training courses, and cooperative office education. (JR)

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PROGRAM OF STUDIES



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FAIRFAX COUNTY PUBLIC SCHOOLS
Department of Instructional Services
Division of Curriculum Services
September 3, 1974

CE004361

BUSINESS EDUCATION

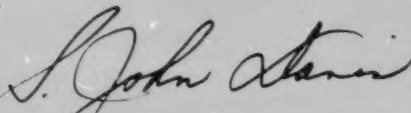
GRADES 9-12

LETTER OF TRANSMITTAL

Program of Studies defines the instructional program to be implemented in Fairfax County Public Schools. It is to be used by schools in establishing their Commitment to Education as well as a basis for meeting Standards of Quality in Virginia. Schools are encouraged to develop supplemental objectives and program variations in accord with local needs and with the approval of the area superintendent. During the school year 1974-75 the program descriptions and the objectives are subject to intensive review in an attempt to achieve consensus.

The Program of Studies will continue to be developed through the involvement of administrative and instructional personnel, students, parents, and other members of the community. Revision is part of the design of the Program of Studies in order that all persons in the community may participate fully in developing a current, relevant instructional program.

The success of the Program of Studies will depend primarily upon its utilization by teachers and on the continued educational development of our students.



S. John Davis
Division Superintendent

September 3, 1974

INTRODUCTION

The Program of Studies defines the instructional program for Fairfax County Public Schools, kindergarten through grade twelve, and is organized as follows:

Section A - Program Description and General Goals

Section B - Program Objectives

Section C - Suggested Teaching/Learning Strategies

Section D - Prerequisites for Student Placement

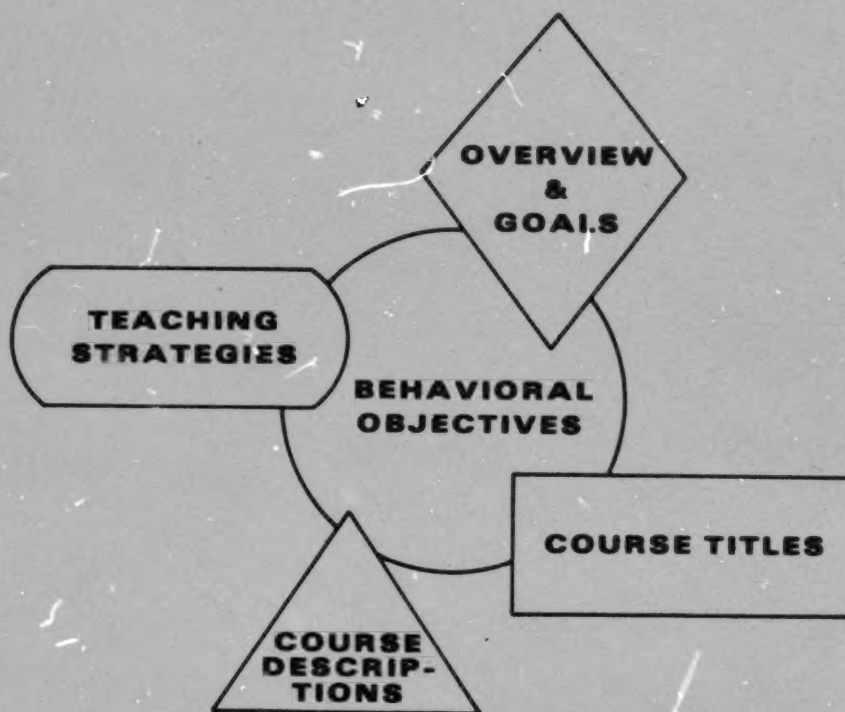
Section E - Program Evaluation

Section F - Instructional Material Requirements

Section G - Program Support Requirements

At present the sections are in various stages of development. During the fall of 1974, instructional personnel will receive for use and reaction Sections A and B, and working drafts for Section C. The other sections will be written, reviewed, and completed at later dates as they are dependent upon Sections A and B.

BUSINESS EDUCATION



FAIRFAX COUNTY PUBLIC SCHOOLS
Department of Instructional Services
Division of Curriculum Services
September 3, 1974

PROGRAM OF STUDIES

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BUSINESS EDUCATION SERVICE
STATE DEPARTMENT OF EDUCATION
BUSINESS EDUCATION OCCUPATIONAL PROGRAMS
RECOMMENDED CLASS SIZE

<u>Name of Program</u>	<u>Course Code</u>	<u>Maximum Students</u>
Advanced Typewriting	6154	25
Bookkeeping	6311	25
Business Info Processing I	6640 (Block)	15
Business Info Processing II	6650 (Block)	15
Clerk-Typist I	6159 (Block)	25
Clerk-Typist II	6160	25
Introduction to Business	6110	25
Office Practice & Procedures	6410	25
Record Keeping	6330	25
Shorthand	6211	25
Stenography I	6250 (Block)	25
Stenography II	6260 (Block)	25
Typewriting I	6151	30

PROGRAM OF STUDIES

BUSINESS EDUCATION

SECTION A

FAIRFAX COUNTY PUBLIC SCHOOLS
Department of Instructional Services
Division of Curriculum Services
September 3, 1974

PROGRAM OF STUDIES



Business Education (9-12)
Section A
September 3, 1974

BUSINESS EDUCATION

General Program Description

Business Education is an elective program which includes basic, supplemental, and career preparatory courses to provide training for students:

Seeking training for gainful employment, job adjustment, and business career advancement in stenographic, clerk-typist, business data processing, and related occupations

Desiring personal-use skills for conducting their everyday business affairs

Pursuing non-office job objectives

Wishing pre-college preparation in business

Seeking practical on-the-job training with a cooperative employer

General Goals of Total Program

The business education program is designed to:

Provide the basic business knowledge needed for effective participation in a free enterprise system

Foster an appreciation of the dignity of working

Develop a positive relationship between classroom standards of performance and standards of performance required by business

Encourage students to develop the attitude and traits fundamental to good interpersonal relationships

Afford opportunities for the constructive use of leisure time and for the development of leadership abilities through the club activities of the Future Business Leaders of America

Business Education Course Offerings

<u>Course Number</u>	<u>Course Title</u>	<u>Class Periods</u>	<u>Credit</u>
6320	Accounting	180	1
6154	Advanced Typewriting	180	1
6311	Bookkeeping	180	1
6144	Business Economics	180	1
6640	Business Info Processing I	360	2
6650	Business Info Processing II	360	2
6131	Business Law	90	$\frac{1}{2}$
6135	Business Management	90	$\frac{1}{2}$
6159	Clerk-Typist I	360	2
6160	Clerk-Typist II	180	1
6110	Introduction to Business	180	1
6410	Office Practice and Procedures	180	1
6157	Personal Typewriting	90	$\frac{1}{2}$
6330	Record Keeping	90	$\frac{1}{2}$
6211	Shorthand I	180	1
6250	Stenography I	360	2
6260	Stenography II	360	2
6611	Survey of Info Processing	90	$\frac{1}{2}$
6151	Typewriting I	180	1
6500	Cooperative Office Education (on-the-job program)	450	2

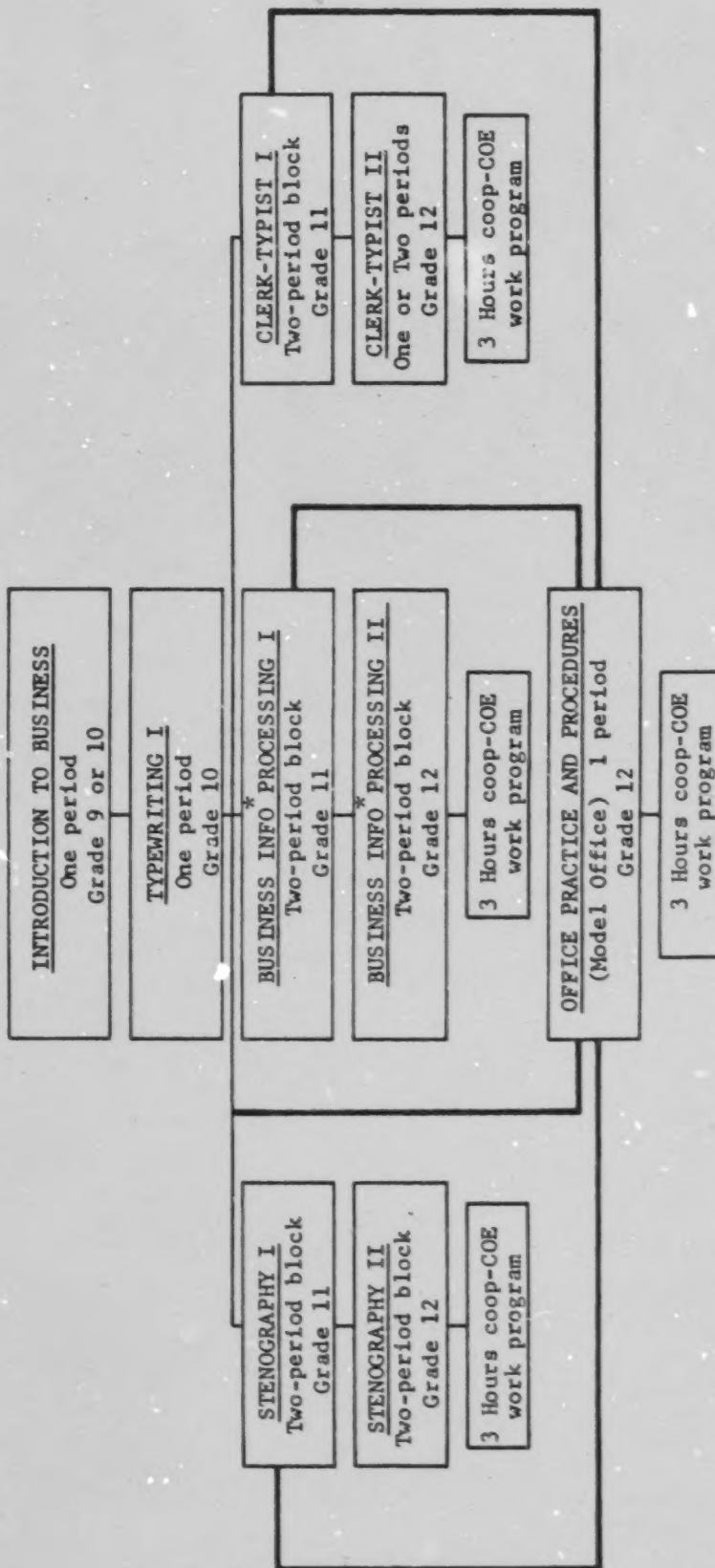
Definition of Course Objectives

Objectives in business education are stated in specific terms upon the completion of each course and are stated in minimal terms for the average student. Student objectives are stated in terms of behavior and are related to the projected requirements for employment or minimum proficiency levels for conducting personal business activities. The objectives are stated in measurable terms to assess each student's achievement within the program. Teaching strategies and activities have been designed to meet these objectives and to provide optimum individualization of instruction.

FAIRFAX COUNTY PUBLIC SCHOOLS

BUSINESS AND OFFICE OCCUPATIONS EDUCATION PROGRAM OF STUDY

CAREER-ORIENTED PROGRAMS



SUPPLEMENTARY ONE-PERIOD COURSES ARE OFFERED IN:

INTRODUCTION TO BUSINESS (Grades 9-10)	SHORTHAND I (Grade 12)	BUSINESS ECONOMICS (Grades 11-12)	ACCOUNTING (Grades 11-12)	BOOKKEEPING (Grades 11-12)
BUSINESS MANAGEMENT (Grades 11-12) 1 semester	RECORD KEEPING (Grades 10-12) 1 semester	TYPEWRITING I (Grades 10-12)	BUSINESS LAW (Grades 11-12) 1 semester	PERSONAL TYPEWRITING (Grades 11-12) 1 semester
SURVEY OF INFO*PROCESSING (Grades 10-12) 1 semester	ADVANCED TYPEWRITING (Grades 11-12) 1 or 2 semesters	*INFORMATION		

Business Education (9-12)
Section A
September 3, 1974

PROGRAM OF STUDIES

BUSINESS EDUCATION
GRADES 9-12

SECTION B

FAIRFAX COUNTY PUBLIC SCHOOLS
Department of Instructional Services
Division of Curriculum Services
September 3, 1974

PROGRAM OF STUDIES

Prerequisite: Above average general achievement

Part I is the first 45-day segment of a 180-day course in Accounting. This part includes a review of the basic accounting cycle with emphasis placed on correct analysis of transactions and proper recording in journals, ledgers, and end-of-fiscal-period working papers and financial statements. An overview of automatic data processing is presented as it relates to accounting. Through the use of departmental records for purchases, cash payments, sales and cash receipts, the student can determine how each department affects the total income or loss in a business.

Part II is the second 45-day segment in a four part series. This part includes a discussion of the principles of partnership accounting including organization and formation of a partnership, division of earnings, and end-of-fiscal-period work. Corporation accounting is introduced as a contrast to partnership accounting and includes topical areas of corporate organization, emphasis on the capital section of the balance sheet, long-term obligations, and end-of-fiscal-period work. Accounting control system introduces the student to the means by which financial operations of a business can be controlled. The means of control included are: a voucher system, cash control system, inventory control system, and budgetary control system.

Part III is the third 45-day segment in a four part series. This part includes ways in which a business keeps detailed payroll records including deductions from employees' wages, payroll taxes, and the kinds of reports describing payroll data that a business prepares for submission to various governmental units. (NOTE: Students also learn how to prepare both federal and state individual income tax returns.) The student will be introduced to the essentials for understanding cost accounting in a simple accounting system for a service department in a manufacturing business. As culminating activities the students are introduced to accounting for sales tax, property tax, business income tax, notes and interest, drafts, and trade acceptances.

Part IV is the fourth 45-day segment in a four part series. This part is designed to introduce methods by which the student will analyze financial statements and determine significant factors about the financial condition of a business. These analytical methods will include analysis of the sources and applications of funds through statement preparation based on working capital and cash which affect the decision-making process. Special procedures in sales accounting for installment, credit card, and COD sales are presented. The final unit of the course, Management of Accounting Information, is designed so that the student can apply his/her total accounting knowledge to the study of a live case and the preparation of a formal report.

Minimum Terminal Objectives

The student will:

I. Accounting Cycle and Automated Accounting Systems

- A. Record, with 80 percent accuracy in a combination journal, entries affecting assets, liabilities, and owner's equity from a list of 15 transactions.

- B. Define a selected vocabulary list of ADP terms as they relate to accounting:
1. Data processing
 2. Automatic data processing
 3. Input/output media
 4. Computer program
 5. Data field
 6. Batch processing
 7. Master card
 8. Detail card

II. Specialized Accounting Procedures

- A. Record, with 80 percent accuracy, data affecting purchases and sales, in the appropriate journal from a given list of ten transactions.
- B. Reconcile a bank statement with 100 percent accuracy involving a bank service charge, outstanding deposits, and outstanding checks, when given the required information.
- C. Record with 80 percent accuracy adjustments from five sets of information concerning bad debts and fixed assets.
- D. Record accurately in the appropriate journals given transactions affecting accrued and deferred income and expenses.
- E. Define three identifying characteristics of a partnership.
- F. Compute from given data the division of net income for a partnership according to capital ratios, and record the appropriate journal entries with 80 percent accuracy.
- G. Define five characteristics of a corporation.
- H. Record from given data with 80 percent accuracy net income, dividend distribution, and sales of capital stock for a corporation.
- I. Prepare accurate records involving ten transactions in a voucher control system, an inventory control system, and a budgetary control system.
- J. Prepare from given time report with 80 percent accuracy a payroll register, an employees earnings record, and a paycheck.
- K. Prepare with 80 percent accuracy cost accounting records for a service business from given information.
- L. Record with 80 percent accuracy five transactions involving sales tax and property tax.
- M. Record with 80 percent accuracy five transactions involving notes receivable and notes payable.
- N. Compute with 80 percent accuracy ten sales involving credit cards, and record the transactions in a combination journal.

III. Analysis and Interpretation of Accounting Systems

- A. Compute with 80 percent accuracy ten financial statement analysis ratios and analyze the results for simple interpretation.
- B. Explain the basic functions of an accounting department as it relates to the organization as a whole.

1 Credit

Grades 11, 12

Advanced Typewriting (6154)
Section B
September 3, 1974

Prerequisite: Typewriting I

Part I is the first 45-day segment of a 180-day, one period course in Advanced Typewriting. In this part emphasis is placed on advanced typewriting skill development; administrative/office style typewriting; government/military typewriting; and increased speed building.

Part II is the second 45-day segment in a four part series. In this part emphasis is placed on the statistical typewriting of insurance forms, real estate office forms, technical forms, and financial institution forms; and increased speed building.

Part III is the third 45-day segment in a four part series. In this part emphasis is placed on legal terminology; legal typewriting techniques and reference materials; responsibilities of the legal secretary; typewriting of legal contracts, real estate documents, civil and criminal action documents, business organizations--partnerships/corporations documents, auto negligence and insurance documents, bankruptcy sets, wills; and increased speed building.

Part IV is the fourth 45-day segment in a four part series. In this part emphasis is placed on medical terminology; typewriting of hospital reports, military discharge summaries, miscellaneous reports--x-ray reports, autopsy reports, etc., medical insurance forms, medical articles, medical letters; and increased speed building.

Minimum Terminal Objectives

The student will:

I. Advanced Skill Development

- A. Compose at the typewriter a response (approximately 150 words) to a given topic applying correct rules governing capitalization, punctuation, and spacing, with 80 percent accuracy.
- B. Type a five-minute timed writing on new-matter, straight-copy material at 45 gross words a minute with a maximum of seven errors.

II. Administrative/Office Style Typewriting

- A. Type from straight copy a two-page Administrative Management Society-style letter with one carbon and all errors neatly corrected (allow 20 minutes).
- B. Type given information on provided specialized business forms (e.g., purchase order, invoices, etc.), with 80 percent accuracy.
- C. Type from given information a form letter on a spirit master or offset master correcting all errors in usable format (allow 20 minutes).

III. Government/Military Typewriting

- A. Arrange properly and type from a given rough-draft data of approximately 200 words a partial text of a speech on 8" x 5" cards, with 80 percent accuracy.
- B. Type a 100-word military style letter from given data in usable format on special size paper (8" x 10½") correcting all errors (allow 15 minutes).

IV. Statistical Typewriting

- A. Set up and type a four-column ruled financial table, containing leaders, columnar headings, and numbers and symbols in correct alignment with all errors neatly corrected and no more than five errors in form and arrangement.
- B. Fill in and type correctly an accident report from given data with 80 percent accuracy on form and arrangement and all errors neatly corrected.
- C. Align and type in correct form and arrangement given data of a quarterly sales report for a real estate agency with all errors neatly corrected.

V. Legal Typewriting

- A. Type a well-arranged partnership agreement from given data on provided legal cap (ruled) paper, with all errors neatly corrected (allow 20 minutes).
- B. Select from a given list of incorrectly spelled words the correct spelling of five basic legal terms and define, with 80 percent accuracy.

VI. Medical Typewriting

- A. Spell, define and type the correct terms from a given list of ten medical abbreviations (80 percent accuracy on spelling and definition).
- B. Type in usable format a medical history report from given data with all errors neatly corrected (allow 20 minutes).

Prerequisite: Average skill in general mathematics

Part I is the first 45-day segment of a 180-day course in Bookkeeping. This part will include instruction in the following areas: review of business and economic systems; and the bookkeeping cycle.

Part II is the second 45-day segment in a four part series. This part deals with banking services that are available to individuals and businesses. Major emphasis is given to the accounting procedures used in a merchandising business. These procedures include: buying and selling merchandise or other items in the business; paying and receiving cash for items or merchandise sold or purchased; computing discounts taken and allowed on appropriate transactions, making allowance entries on sales and purchases; making special entries; preparing a trial balance to prove the accuracy of the general ledger; and preparing the schedule of accounts receivable and accounts payable to prove the accuracy of the subsidiary ledger.

Part III is the third 45-day segment in a four part series. Since Part III provides a review of Part II, it is possible for a student to continue with this part of the course at a later time. Material to be covered in Part III includes the following: payroll records; income taxes; review of Part II; end of fiscal period work for merchandising business; and a simulated project.

Part IV is the fourth 45-day segment in a four part series. It will include instruction in the following areas: notes and interest; bad debts; depreciation of fixed assets; disposing of fixed assets; accruals and deferrals; introduction to data processing; and a simulated project.

Minimum Terminal Objectives

The student will:

I. Business and Economic Systems

- A. Identify two of three major forms of business organizations.
- B. List a minimum of two characteristics, two advantages, and two disadvantages of each.

II. Bookkeeping Cycle

- A. Analyze and/or journalize the following transactions into their debit and credit parts with 80 percent accuracy:
 1. Cash transactions
 - a. Cash sale involving sales tax
 - b. Additional investment
 - c. Accounts receivable
 - d. Accounts payable
 - e. Withdrawals
 - f. Payment of expense
 - g. Purchase of merchandise
 - h. Purchase of asset (without trade-in)

2. Sales transactions
 - a. On account
 - b. Returns and allowances
 - c. Discounts
 3. Purchases transactions
 - a. On account
 - b. Returns and allowances
 - c. Discounts
 4. Payroll and tax transactions
 - a. Payment of payroll
 - b. Record employer's tax liabilities
 5. Petty cash transactions
 - a. Establishing the fund
 - b. Replenishing the fund
 6. Adjusting entries
 - a. Merchandise inventory (two entries involved)
 - b. Prepaid insurance
- B. Post two given miscellaneous transactions from a general journal to the appropriate general ledger accounts and number the sequence in which each part is posted, with 100 percent accuracy.
- C. Identify the classifications of accounts which appear on an income statement of a merchandising business.
- D. Explain how the following affect the capital account: net loss, net income, and withdrawals.
- E. Identify the classifications of accounts which appear on a balance sheet.

III. Depreciation, Bad Debts, and Promissory Notes

- A. Compute from a given set of data for a fixed asset, with 80 percent accuracy, straight-line depreciation and book value after one year.
- B. Define the term "depreciation" and discuss why it is important to record it.
- C. Identify and discuss at least one way to dispose of a fixed asset.
- D. Identify and explain at least one of the various methods of estimating bad debts.
- E. Explain how bad debts expense, and allowance for bad debts are reported on financial statements.
- F. Explain why promissory notes are used.
- G. Determine the maturity date on at least three promissory notes from the data given with a minimum of 80 percent accuracy.
- H. Compute interest without interest tables on at least three notes, with a minimum of 80 percent accuracy.
- I. Explain how notes payable and interest expense affect financial statements.

IV. Banking Activities

- A. Prepare four checks in good form including the check stub or register for given business transactions to include one deposit and one service charge with 100 percent accuracy.
- B. Reconcile a bank statement which includes at least one outstanding deposit, five outstanding checks, and a bank service charge, and make the necessary corrections with 100 percent accuracy.

V. Data Processing

- A. List three applications for a computer.
- B. Summarize the difference between hardware and software.
- C. Give one function for each of the five major components in a data processing system (input, storage, control, logic, output).
- D. Define the following basic terms in data processing:
 - 1. Automatic data processing
 - 2. Card column
 - 3. Coding
 - 4. Data
 - 5. Field
 - 6. Input/output media
 - 7. Memory
 - 8. Program
 - 9. Source document
- E. List four data processing occupations and give one duty of each.

1 Credit

Grades 11, 12

Business Economics (6144)

Section B

September 3, 1974

Prerequisite:

Part I is the first 45-day segment of a 180-day course in Business Economics in which the student will learn about the basic functions and organization of business. In this part the nature of economics is introduced and instruction in the following areas is given: characteristics of the American economy; national and personal economic goals; labor; and inflation and deflation.

Part II is the second 45-day segment in a four part series in which the student will learn his/her role in business as a consumer. In this part the effects of marketing on the economy is introduced and instruction in the following areas is given: wise shopping guides, banking services, financial management and using credit, and the effect of credit on the economy.

Part III is the third 45-day segment in a four part series in which the student will learn about investments and insurance, both of which will help the student in planning for his/her future. In this part investment programs are introduced and instruction in the following areas is given: securities information, determining housing needs, and providing insurance protection.

Part IV is the fourth 45-day segment in a four part series in which the student will learn about his/her government's role in the economy and environment. In this part governmental controls are introduced and instruction in the following areas is given: taxation, career selection, and ecological influences.

Minimum Terminal Objectives

The student will:

I. Economics of Business and the Consumer

- A. Describe two universal economic problems and list three activities that must be performed in solving these problems.
- B. Describe the three characteristics of our American economy.
- C. Identify the characteristics of the three types of business.
- D. Explain two primary causes of inflation and three federal government controls to curb it.
- E. Explain the effect labor unions have on business and list four specific aims of labor unions.

II. Marketing, Banking and Financial Management

- A. Explain the effect advertising has on consumer spending.
- B. Indicate a knowledge of wise buying guides by listing five primary criteria used by a wise buyer.

- C. Determine whether the five elements of a contract are present and identify each from given case situations.
- D. Denote four functions of the Federal Reserve System.
- E. Identify four principles of wise financial management.
- F. Explain three advantages and three disadvantages of using credit.
- G. Compute the interest rate or finance charge and determine the actual cost of credit in given problems.

III. Investments and Personal Protection

- A. List six of eight major types of investment choices and discuss the advantages and disadvantages of each.
- B. Interpret from a sample column of the New York Stock Exchange quotations the information for five given stocks, with 80 percent accuracy.
- C. Describe three advantages and three disadvantages of home ownership.
- D. Explain the principle underlying insurance and list one major function of insurance companies.
- E. State two major objectives of planning a life insurance program and list three types of ordinary life insurance.
- F. Identify two major provisions of the Federal Social Security Act as passed in 1935.

IV. Government Influence, Careers, and Ecology

- A. Denote and interpret four methods of government regulation of business.
- B. Explain two services or benefits provided by federal, state and local tax revenue.
- C. Indicate a knowledge of the sources of federal government funds by listing three.
- D. Complete a 1040 A (short form) income tax return when given the necessary information, with 80 percent accuracy.
- E. State five considerations in selecting a career.
- F. State the effects of given solutions for three conservation problems on the economic of business or the country.

Prerequisites: Introduction to Business and Typewriting I

Part I is the first 45-day segment of a 180-day, double-period course in Business Information Processing I. It introduces data processing and offers instruction as to the importance and evolution of data processing. Major emphasis is placed on understanding basic concepts and fundamental principles applicable to the processing of information. Major topical areas include introduction to and history of the computing industry, fundamentals of keypunching, functions of the sorter, and application training on adding and calculating machines.

Part II is the second 45-day segment in a four part series. Major emphasis is placed on business information applications and their impact on business decisions. Topical areas include the study of the basic accounting cycle, payroll applications, and the use of data processing for reconciling bank statements.

Part III is the third 45-day segment in a four part series. Major emphasis is placed on the introduction of the elements of computing and data processing systems. Topical areas include introduction to computers and programming, program development process, and programming in the BASIC language.

Part IV is the fourth 45-day segment in a four part series. Major emphasis is placed on the extension and mastery of the BASIC programming language and a survey of the various types and application of compiler languages. Major topical areas include BASIC (continued); introduction to a compiler language; and a practicum in accounting systems.

Minimum Terminal Objectives

The student will:

I. Basic Concepts

- A. Interpret the Hollerith code for alphabetic and numeric data from a punched card.
- B. Perform with 80 percent accuracy five problems in addition and five in subtraction on a ten-key adding/listing machine and five problems in multiplication and five in division using an electronic calculator.
- C. Demonstrate an understanding of keypunching techniques:
 1. Prepare a card layout from a given set of data using numeric, alphabetic, duplication, and skip fields.
 2. Keypunch from the card layout a program drum card.
 3. Keypunch, using the program drum card, 250 correct characters in five minutes from a given set of source documents.
- D. List four entry-level occupations in data processing and give one responsibility for each.
- E. Sort alphabetically, numerically, and selectively on four card columns for 50 cards using a punched-card sorter.

F. Define basic terms in business data processing such as:

Address	Compiler	Memory
Alphabetic field	Core storage	9-edge
Alphanumeric field	Data	Program
Automatic data processing (ADP)	External storage	Programmer
Branching	Field	Right-justified
Card column	Input/output media	Source document
COBOL	Magnetic ink character recognition (MICR)	Template
Coding	Master card	12-edge

II. Accounting Skills and Concepts

- A. Analyze and/or journalize the following transactions into their debit and credit parts, with 80 percent accuracy:
 1. Cash transactions
 - a. Cash sale
 - b. Additional investment
 - c. Accounts payable
 - d. Accounts receivable
 - e. Payment of expense
 2. Other transactions
 - a. Sale on account
 - b. Purchase on account
- B. Identify the classifications of accounts which appear on:
 1. An income statement
 2. A balance sheet
- C. Reconcile a bank statement which includes at least one outstanding deposit, two outstanding checks, and a bank service charge with 100 percent accuracy.

III. Computing Systems

- A. Convert ten numbers from numbering systems common to third generation computers to base ten.
- B. Perform ten simple addition and subtraction problems in numbering systems common to third generation computers.
- C. List and describe the function for each of the five major components of a data processing system (input, storage, control, logic, output).
- D. Describe the function of computer system peripheral devices from a given list (tape drive, disk pack, line printer, drum unit, card reader, console typewriter).

IV. Program Development Process

- A. Describe from a given list the interrelationship of the seven steps in solving a programming problem.
- B. Flowchart the logical steps for solving a simple listing problem.
- C. List a major difference between a source program and an object program.
- D. Code a listing problem in BASIC language.

2 Credits

Grade 12

Prerequisites: IBM programmer aptitude analysis test results must indicate sufficient aptitude for successful performance. Recommended for students with an above-average grade in Business Information Processing I, or for students who demonstrate an interest in and aptitude for areas requiring analytical and logical thinking.

Part I is the first 45-day segment of a 180-day, double-period course in Business Information Processing II. This part develops an understanding of the importance of the computer in our society, what a computer is and how it operates in business applications. The purpose of this part is to provide an overview of the basic functions of computers and computer systems. Preliminary instruction is given in the following areas: history; accounting; numbering system; review of electronic accounting machines; and logic.

Part II is the second 45-day segment in a four part series. This part explains how the computer operates and application relationship within the computer system. Instruction is given in the following areas: electronic computer; central processing unit; language application and coding schemes; BASIC--Level One; and BASIC--Level Two.

Part III is the third 45-day segment in a four part series. This part introduces the high-level third and fourth generation compiler programming language such as FORTRAN and COBOL. Instruction is given in the following areas: flowcharting; storage and input/output; FORTRAN--Level Two; and COBOL--Level One.

Part IV is the fourth 45-day segment in a four part series. This part is a continuation of a second third and fourth generation compiler language, COBOL, and introduces information processing as a career. The study of both these areas will give the students a depth of knowledge, enabling them to choose an area for further study or to seek entry-level employment. This final part will give instruction in the following areas: COBOL--Level Two; COBOL--Level Three; COBOL--Level Four; COBOL--Level Five; and data processing careers.

Minimum Terminal Objectives

The student will:

I. Basic Concepts

A. Define basic terms in business data processing such as:

Address	Console	Parity
Analog computer	Core storage	Programmer
Assembler	Digital computer	Random access
Auxiliary storage	External storage	Real time
Analyst	Initialize	Remote job entry
Bit	Magnetic ink character	Right-justified
Buffer	recognition (MICR)	Sequential access
Cathode-ray tube	Mark-sensed card	Time sharing
Coding	Off-line	
Compiler	On-line	

- B. List five entry-level occupations in data processing and give one responsibility for each.
- C. Demonstrate an understanding of keypunching techniques:
 - 1. Prepare a card layout from a given set of data using numeric, alphabetic, duplication, and skip fields.
 - 2. Key punch from the card layout a program drum card.
 - 3. Key punch, using the program drum card, 300 correct characters in five minutes from a given set of source documents.

II. Computing Systems

- A. Convert ten numbers from numbering systems common to third generation computers to base ten from a computer core dump.
- B. Perform ten simple addition and subtraction problems in numbering systems common to third generation computers from a computer core dump.
- C. List and describe the function of each of the five major components of a data processing system (input, storage, control, logic, output).
- D. List two major differences between hardware and software.
- E. Define the function of the following types of computer systems: tape operation system (TOS); disk operating system (DOS); operating system (OS).

III. Program Development Process

- A. Solve one problem from a given set of data using simple problem-solving techniques and standard flowcharting symbols.
- B. List two major differences between a source program and an object program.
- C. Code a listing problem in FORTRAN language.
- D. Code selected statements in COBOL from given sets of data.
- E. Locate two data exceptions from a selected section of a data division map and a procedure division map in a COBOL program.
- F. Identify the syntax errors in BASIC, FORTRAN, and COBOL programs, given source listings and accompanying diagnostic messages, and rewrite the source statements in correct form.

1/2 Credit

Grades 11, 12

Business Law (6131)

Section B

September 3, 1974

Prerequisite: None (For the student to obtain the maximum benefit from the course, a better-than-average reading skill is necessary. While there are no course prerequisites, the student who has had Introduction to Business will find it helpful).

Part I is the first 45-day segment of a 90-day course in Business Law. The content of this part is divided into three units. Unit I is a study of rights and responsibilities. Unit II is a study of crimes and torts, law enforcement, and the court system. Unit III covers contracts in general.

Part II is the second 45-day segment in a two part series. In this part the student applies the basic knowledge of contracts to the study of contracts relating to employment, sales, the landlord-tenant relationship and commercial paper. The class continually follows current legislation, changes in laws, and court decisions. By the end of the course, the student should have an understanding of when he/she could benefit by having a lawyer and how to retain one.

Minimum Terminal Objectives

The student will:

I. Rights and Responsibilities

- A. Determine if a given individual has a basic right in given cases that involve the individual citizen, the minor, and the consumer (80 percent accuracy).
- B. Suggest the possible courses of action a consumer might take for a given consumer problem.

II. Our Legal System

- A. Indicate, in given legal situations, whether the action involved is a crime, a tort, or both, and the responsibility and liability of the party or parties involved (80 percent accuracy).
- B. Determine the solution to legal situations involving the court system--to include jurisdiction of the court, criminal action vs civil action, trial by judge vs trial by jury, and juvenile court vs regular court (80 percent accuracy).

III. Contracts

- A. Determine if an element of a contract is missing in given cases involving contracts (80 percent accuracy).
- B. Indicate whether given contracts would or would not have to be in writing to meet the requirements of the Statute of Frauds (80 percent accuracy).
- C. Indicate whether a remedy is available to the injured party in given case problems involving contracts and, if available, the most appropriate remedy (80 percent accuracy).

IV. Employment

- A. Solve given employer-employee cases concerning rights, duties, and liability of the parties involved (80 percent accuracy).
- B. Determine, using knowledge of federal and state labor laws, the solution to cases involving unfair labor practices, discrimination in employment, and protection of employees (80 percent accuracy).

V. Sales Contracts

- A. Indicate, in given case problems, when transfer of ownership and risk of loss take place (80 percent accuracy).
- B. Determine if the buyer has a remedy in given sales problems and, if he/she does, the most logical remedy (80 percent accuracy).

VI. Landlord-Tenant Relationship

- A. Determine the solution to given landlord-tenant cases concerning the types of tenancy and the rights and duties of the parties in regard to the lease (80 percent accuracy).
- B. Determine if a given individual has a right or remedy in situations based on present local landlord-tenant laws (80 percent accuracy).

VII. You and Your Lawyer

- A. List four or more occasions when seeking legal services is beneficial.
- B. State three sources of information for selecting a lawyer.

1/2 Credit

Grades 11, 12

Business Management (6135)

Section B

September 3, 1974

Prerequisite: None

Part I is the first 45-day segment of a 90-day course in Business Management. It begins with a general overview of American business followed by the study of forms of business ownership, internal organization and management functions, and financing a business.

Part II is the second 45-day segment of a two part series. The student will be introduced to four important areas in the management of a business: marketing, purchasing, banking and credit, and insurance.

Minimum Terminal Objectives

The student will:

I. Overview of American Business

- A. Write a paragraph showing his/her general understanding of American business by identifying the kind of economic system we have in this country and describing at least five characteristics of American business.
- B. List the advantages or disadvantages of going into business for self (80 percent accuracy).

II. Business Ownership

- A. Identify, when given a list of statements describing characteristics, advantages, and disadvantages of business ownership, the form of business ownership to which each statement relates (80 percent accuracy).
- B. List seven or more sources of information for the person going into business and/or the person working in business at the management level.

III. Internal Organization

- A. Analyze the internal organization of a given business and make valid suggestions for improvement based on the principles of good business organization (80 percent accuracy).
- B. Analyze case problems concerning management functions for all possible solutions and make logical suggestions (80 percent accuracy).

IV. Financing a Business

- A. Indicate a basic understanding of the importance of keeping records and of the kinds which must be kept (80 percent accuracy).
- B. Suggest all possible alternatives and make a recommendation when given situations involving: determining the financial requirements of a business, the method of financing a business, the keeping of records, and cash control.

V. Marketing

- A. Analyze and evaluate the organization for marketing and the promotion and selling activities of a given company (80 percent accuracy).
- B. Indicate a general knowledge of laws regulating brand names, packaging, labeling, and pricing, and the products to which they apply (80 percent accuracy).

VI. Purchasing

- A. Recognize purchasing problems and indicate factors that should be taken into consideration in determining the solution to each one (80 percent accuracy).
- B. Outline a typical purchasing procedure, indicating the forms used, for a large business (80 percent accuracy).

VII. Banking and Credit

- A. Recommend the most advantageous solution to business problems related to choosing a bank, using a bank to help finance a business, and using and endorsing negotiable instruments (80 percent accuracy).
- B. Indicate, when given circumstances involving extending credit and collecting overdue accounts, the action that would be most advantageous to the business (80 percent accuracy).

VIII. Insurance

- A. Indicate, when given a list of business risks, whether the risk could normally be covered by insurance and, if so, what kind of insurance would be required (80 percent accuracy).
- B. Match to their definitions a list of terms related to insurance (80 percent accuracy):
 - 1. Insurer
 - 2. Premium
 - 3. Cancellation
 - 4. Insurable interest
 - 5. Coinsurance clause
 - 6. Extended coverage
 - 7. Bodily injury liability (automobile)
 - 8. Property damage (automobile)
 - 9. Comprehensive coverage (automobile)
 - 10. Dividend
 - 11. Cash value
 - 12. Beneficiary
 - 13. Restrictive clauses
 - 14. Grace period
 - 15. Double indemnity

Prerequisites: Introduction to Business and Typewriting I

Part I is the first 45-day segment of a 180-day, double-period course in Clerk-Typist I. This part emphasizes instruction in the following areas: introduction to the electric typewriter; review of basic skills; clerk-typist orientation; and introduction to the adding, calculating, and duplicating machines.

Part II is the second 45-day segment in a four part series. This part emphasizes instruction in the following areas: typewriting skill refinement; production typewriting; cashier's and banking records; indexing and filing; related terminology; business effectiveness through personal financial management.

Part III is the third 45-day segment in a four part series. This part offers instruction in the following areas: production typewriting; filing; refinement of machine skills (adding, calculating and duplicating); related business terminology; record keeping; and an integrated project.

Part IV is the fourth 45-day segment in a four part series. This part offers instruction in the following areas: production typewriting; payroll records; machines (adding, calculating; and duplicating); business behavior and psychology; receptionist and telephone training; techniques of job application and interviews; and a simulated project.

Minimum Terminal Objectives

The student will:

I. Typewriting

- A. Type a five-minute straight copy timed writing at 45 words per minute with no more than seven errors.
- B. Employ good spelling, grammar, and punctuation skills with 80 percent accuracy in composing and typewriting a simple letter, with 100 percent accuracy on proofreading.
- C. Type business correspondence with acceptable placement in mailable form and a maximum of five neatly corrected errors using an electric typewriter.
- D. Arrange and type in usable form from rough draft copy a table of 100 words with at least three columns including column headings, and apply appropriate techniques for making three multiple copies using carbon paper or sets with a maximum of five corrected errors allowing 30 minutes.
- E. Type in usable form from script writing an interoffice memorandum of 150 words.
- F. Type in usable form rough draft copy with inserted corrections a meeting agenda of 15 items.

II. Adding and Calculating Machines

- A. Operate the ten-key adding machine allowing ten minutes to solve ten addition and ten subtraction problems with 100 percent

accuracy using correct fingering, sub-total, non-add and repeat keys.

- B. Operate the calculator allowing 15 minutes to solve ten simple multiplication, accumulative multiplication, three-factor multiplication or constant multiplication, and ten division problems with 100 percent accuracy, using correct fingering.

III. Duplicating

- A. Type correctly, proofread and run a specified number of a high-quality duplicated copy showing efficient operation of a minimum of one piece of equipment which is available to the classroom. The finished copy should be free of smudges, clear, and correctly centered.
- B. Identify the appropriate duplicating process for a particular job, when given an office assignment for the reproduction of material.

IV. Record Keeping

- A. Apply his/her knowledge of banking, when given relevant information, by opening a checking account, writing checks, and preparing a bank reconciliation with a minimum of 80 percent accuracy.
- B. Make an accurate record for a petty cash fund, from given data.
- C. Prepare a sales slip, an invoice, and a monthly statement when given relevant data.
- D. Compute extensions and totals for an inventory record from given data.
- E. Prepare a payroll register for five employees when given computed payroll information.

V. Filing

- A. Set up, following a given list of items and criteria, an alphabetic and numeric filing system.
- B. Index, code, and arrange in 15 minutes in alphabetical order ten names from a given list.

VI. Handling Mail

- A. List four duties of the office worker in handling incoming and outgoing mail.
- B. Date, sort and route daily mail when given the appropriate criteria.

VII. Telephone Usage

- A. Respond to hypothetical descriptions of office situations using correct telephone techniques for greetings, referrals, screening, making appointments, routing and terminating calls.
- B. Select the correct type of call to be used for given situations which involve using the following:
 - 1. Station-to-station
 - 2. Person-to-person
 - 3. Direct distance dialing
 - 4. Collect
 - 5. Credit card
 - 6. Overseas
 - 7. Conference

VIII. Employment Preparation

- A. List four sources of job information of the various services, including Federal Civil Service, and explain how they are used.
- B. Compose and type in mailable form a letter of application from a given "want ad," a data sheet according to a given format, and an application form.
- C. State the minimum Federal Civil Service requirements for typewriting.

IX. Business Behavior

- A. List five personal characteristics desired in an office employee.
- B. React to given office situations applying a knowledge of good human relations.

1 Credit

Grade 12

Clerk-Typist II (6160)

Section B

September 3, 1974

Prerequisite: Clerk-Typist I

Part I is the first 45-day segment of a 180-day single-period course in Clerk-Typist II. It is recommended that this part be contiguous to the Clerk-Typist II series. Part I offers instruction in the following areas: business communication and language skills; review of basic grammar skills; use of reference materials; applied office math; review of telephone, mail, receptionist duties, office machines, filing; office practices and procedures.

Part II is the second 45-day segment in a four part series. It is recommended that this part be contiguous to the Clerk-Typist II series. Part II offers instruction in the following areas: business law; machine transcription; business principles and organization; office practice and procedures; and advanced typing to be integrated with all units and in a simulation project.

Part III is the third 45-day segment in a four part series. It is recommended that this part be contiguous to the Clerk-Typist II series. Part III offers instruction in the following areas: elements of fiscal records and income tax; data processing; advanced typing; office practice and procedures including job preparation for government and private industry; and simulation project integrating skills and knowledge.

Part IV is the fourth 45-day segment in a four part series. It is recommended that this part be contiguous to the Clerk-Typist II series. Part IV "puts it all together" by means of simulation; machine transcription; payroll procedures; interpersonal relations; business communications; and reproduction and duties related to office functions.

Minimum Terminal Objectives

The student will:

I. Typewriting

- A. Type letters, memos, forms, reports, or other business communications with correct placement and all errors neatly corrected. All material should be proofread with 100 percent accuracy.
- B. Type a five-minute straight copy timed writing at 55 words per minute with no more than eight errors.
- C. Arrange and type in mailable form from given rough-draft data a two-page letter, a meeting-agenda enclosure for the letter with two carbon copy notations and a correctly addressed envelope, allowing 45 minutes.
- D. Type from given data on provided legal blank form a bill of sale with all errors neatly corrected (allow 15 minutes).

II. Machine Operation

- A. Transcribe from machine a letter of approximately 125 words in mailable form.

- B. Employ good transcription techniques and English usage in the transcription of recorded minutes (200 words) of a business meeting.
- C. Operate adding and calculating machines using proper fingering and special keys to solve and verify 25 problems in addition, subtraction, multiplication, and division, with 100 percent accuracy.
- D. Type a master and/or stencil using the correct duplicating process for a given business problem. Proofread and prepare the copy in usable form and run correctly.

III. Data Processing

- A. List three applications for a computer.
- B. Summarize the difference between hardware and software.
- C. Give one function for each of the five major components in a data processing cycle (input, storage, control, logic, output).
- D. Define the following basic terms in data processing:
 - 1. Automatic data processing
 - 2. Card column
 - 3. Coding
 - 4. Data
 - 5. Field
 - 6. Input/output media
 - 7. Memory
 - 8. Program
 - 9. Source document
- E. List four data processing occupations and give one duty of each.

IV. Filing

- A. Set up, following a given list of items and criteria, a geographic and subject filing system.
- B. Describe the types of records vital to the continued operation of a business which should be retained and explain the importance of immediate retrieval of those records to the operation of the business.

V. Telephone Usage

- A. Choose from a list the best solution for handling a particular office situation in which the telephone is used.
- B. Describe the purpose of PBX, WATS line, and teletype in an office with 90 percent accuracy.

VI. Mail and Messenger Service

- A. List and define five special postal services, with 85 percent accuracy.
- B. Given a description of pieces of incoming mail, rate them as to the priorities for taking care of such correspondence by the employer.

VII. Business Behavior

- A. Solve three situations involving human relations problems in the office that might occur during a business day by choosing the best solution to each problem from a prepared list.
- B. Identify the personal traits or character changes that would be necessary to correct an undesirable office situation that has resulted directly from inappropriate behavior.

VIII. Business Law

- A. Determine, when given a list of five simple situations each relating to one of the elements of a contract, whether the element is present or missing (80 percent accuracy).
- B. Describe the purpose of five legal forms from a given list, with 85 percent accuracy.
- C. Determine, in given situations involving office responsibilities and duties, whether he/she is or is not acting as an agent (80 percent accuracy).

IX. Communication Skills

- A. Compose and type in mailable form an answer to a given piece of business correspondence, in a clear, concise, and courteous manner applying correct English usage.
- B. Choose from sentences or paragraphs the one in each case which best exhibits effective business communication for answers to specific correspondence.

X. Income Tax and Fiscal Records

- A. Verify given data and type in accurate and usable form an average income tax problem.
- B. Make machine computations from given data and prepare a payroll register, payroll checks, and related tax forms for five people with 100 percent accuracy.

XI. Employment Preparation

- A. Identify steps necessary to prepare for a position in a specific type of office.
- B. Analyze and interpret from a given example of a typical interview the questions and responses as they relate to both the applicant and interviewer.

1 Credit

Grades 9, 10

Prerequisite: None

Part I is the first 45-day segment of a 180-day course in Introduction to Business. If students are to develop business competence, they must understand the importance of business in our society. They need to know what business is and how it operates to satisfy our needs and wants. The purpose of this part is to provide an overview of the basic functions of our business system. Part I introduces our business world and gives preliminary instruction in the following areas: motive and organization of business; goods and services; data processing; savings and investments; and money management.

Part II is the second 45-day segment in a four part series in which the student will learn his/her role in business as a consumer. This part introduces you as a consumer and gives instruction in the following areas: you as a consumer; consumer purchasing; occupational information; citizenship responsibilities; and consumer credit.

Part III is the third 45-day segment in a four part series in which the student will learn about banking and insurance, two types of enterprises that are important to the business life of a community. This part introduces financial management and gives instruction in the following areas: functions and operations of banks; banking accounts; other financial institutions; personal insurance; and other insurance.

Part IV is the fourth 45-day segment in a four part series. This part covers two major areas: (1) the effects of government and business spending; and (2) the role of organized labor in our business system. A study of both topics provides another way of helping students understand how our business system operates. This part introduces government and labor and gives instruction in the following areas: government and business spending; government aids and regulations of business; role of organized labor; and labor-management relations.

Minimum Terminal Objectives

The student will:

I. Our Business World

- A. Give at least two roles that business plays in our lives.
- B. List three functions of marketing and describe how these affect the cost of the product.
- C. Prepare a list of five considerations that one should make before preparing an investment program.
- D. Define inflation and deflation and list the three methods the government has of controlling each.
- E. Select from a given list of diversified investments those which minimize personal loss due to extremes in inflation and deflation.

II. You As A Consumer

- A. List two ways consumer spending affects business.
- B. Indicate a knowledge of wise buying procedures by listing four primary criteria used by a wise buyer.
- C. Justify the existence of consumer protection agencies and list three agencies and the services of each.
- D. Analyze the effects of the broad use of credit on our economic system and list three effects.

III. Financial Management

- A. List four major services that banks provide the public.
- B. Match 20 checking account terms with their definitions, with 80 percent accuracy.
- C. Select from a given list of case situations the appropriate form of life insurance policy to provide the best coverage.
- D. List four principles of wise money management.

IV. Government and Labor

- A. Explain the purposes of government regulation of business and list three methods of regulation.
- B. List five major goals of labor unions.
- C. List four ways government can regulate or help the preservation of our ecology.

1 Credit

Grade 12

Office Practice & Procedures (6410)
Section B
September 3, 1974

Prerequisite: Students must have completed typewriting with advanced skills.

Part I is the first 45-day segment of a 180-day course in Office Practice and Procedures. This part will include instruction in the following areas: business orientation; job orientation; typewriting skills review; business communications; and business filing and records control.

Part II is the second 45-day segment in a four part series. This part will include instruction in the following areas: business math and computational skills; adding machines; calculators (printing and electronic); transcribers; and duplication processes (ditto, mimeograph, offset, and dry copy).

Part III is the third 45-day segment in a four part series. This part will include instruction in the following areas: income taxes; payroll records; introduction to data processing; specialized typewriting problems; Civil Service test and job preparation; and integrated projects.

Part IV is the fourth 45-day segment in a four part series. This part is designed to provide training in the conduct of realistic office routines in the following areas: application for a position; business ethics and attitudes; interpersonal relations; psychology and human relations; money management; and office simulation/model office.

Minimum Terminal Objectives

The student will:

I. Typewriting

- A. Type a five-minute timed writing on new matter straight-copy material at 45 gross words a minute with a maximum of seven errors.
- B. Type, using appropriate structural techniques, correspondence and other business material in mailable form with a maximum of five corrected errors per page.

II. Filing

- A. Set up, following a given list of items and criteria, an alphabetic, numeric, geographic and subject filing system.
- B. Index, code and arrange in 15 minutes in alphabetical order ten names from a given list.

III. Adding and Calculating Machines

- A. Operate the ten-key adding machine allowing ten minutes to solve ten simple addition and ten subtraction problems with 100 percent accuracy using correct fingering sub-total, non-add and repeat keys.
- B. Operate the calculator allowing 15 minutes to solve ten simple multiplication, accumulative multiplication, three-factor multiplication or constant multiplication and ten division problems with 100 percent accuracy using correct fingering.

IV. Duplicating

- A. Prepare, correctly proofread, and run a specified number of copies of high-quality duplicated copy, showing efficient operation of a minimum of one piece of equipment which is available to the classroom. The finished copy should be free of smudges, clear, and correctly centered.
- B. Identify the appropriate duplicating process for a particular job when given an office assignment for the reproduction of material.

V. Transcribing

- A. Employ good transcription techniques and English usage in the transcription of recorded minutes (200 words) of a business meeting.
- B. Transcribe from machine a letter of approximately 125 words in mailable form with proper placement and all errors corrected.

VI. Data Processing

- A. List three applications for a computer.
- B. Summarize the difference between hardware and software.
- C. Give one function for each of the five major components in a data processing system (input, storage, control, logic, output).
- D. Define the following basic terms in data processing:
 - 1. Automatic data processing
 - 2. Card column
 - 3. Coding
 - 4. Data
 - 5. Field
 - 6. Input/output media
 - 7. Memory
 - 8. Program
 - 9. Source document
- E. List four data processing occupations and give one duty of each.

VII. Business Behavior

- A. List five personal characteristics desired in an office employee.
- B. React to given office situations applying a knowledge of good human relations.

VIII. Handling Mail

- A. List four duties of the office worker in handling incoming and outgoing mail.
- B. Date, sort, and route daily mail when given the appropriate criteria.

IX. Telephone Usage

- A. Respond to hypothetical descriptions of office situations using correct telephone techniques for greetings, referrals, screening, making appointments, routing and terminating calls.
- B. Select the correct type of call to be used for given situations which involve using the following:

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1. Station-to-station
2. Person-to-person
3. Direct distance dialing
4. Collect
5. Credit card
6. Overseas
7. Conference

X. Employment Preparation

- A. List four sources of job information of the various services, including Federal Civil Service, and explain how they are used.
- B. Compose and type in mailable form a letter of application from a given "want ad," a data sheet according to a given format, and an application form.
- C. State the minimum Federal Civil Service requirements for typewriting.

1/2 Credit

Grades 11, 12

Personal Typing (6157)

Section B

September 3, 1974

Prerequisite: None

Part I is the first 45-day segment of a 90-day course in Personal Typewriting. It is designed for the college- and non-college-bound student who is not intending to use typewriting for vocational purposes. Instruction includes the development of touch typewriting skill and the application of the skill to tabulation mechanics, paragraph typing, proofreading, figures and symbol typing, statistical typing, setting of margins, centering of letters and following directions. The emphasis will be on correct techniques, speed and accuracy. Satisfactory completion of the first segment will be a prerequisite for the students undertaking the second segment.

Part II is the second 45-day segment of a 90-day course in a two part series. This is an accelerated course designed for the college- and non-college-bound student not intending to use typewriting for vocational purposes. Production emphasis will be in the area of letters (personal and business), tabulations (including statistical), manuscripts and reports, and forms utilized in the conduct of personal affairs.

Minimum Terminal Objectives

The student will:

I. Typing Techniques

- A. Define the functional parts of the typewriter.
- B. Demonstrate good correction techniques on original and carbon copies by using at least three different methods for correcting.
- C. Type for five minutes from straight copy material 23 gross words per minute and with no more than eight errors.

II. Personal Business Problems

- A. Arrange and type in usable form a tabulated problem of 100 words containing main, secondary and column headings, correcting all errors in 30 minutes.
- B. Arrange and type in usable form a one-page report or a book review containing proofreader's marks and correcting all errors in 20 minutes.
- C. Select and type in mailable form a personal business letter (100 words) in one of the following forms, and address an envelope in 30 minutes:
 1. Modified block with mixed punctuation
 2. Modified block with indented paragraphs and mixed punctuation
 3. Block with open punctuation.
- D. Arrange and type in usable form, errors corrected, a one-page manuscript (leftbound) with two footnotes, quoted material, and a six-item bibliography in 45 minutes.
- E. Type in correct form five index cards in ten minutes correcting all errors.

- F. Arrange and type in usable form an outline of 100 words correcting all errors in 20 minutes.

III. English Usage

- A. Compose and type a personal note in response to a given topic and proofread finished copy with 100 percent accuracy.
- B. Divide at the typewriter from a given list ten words in ten minutes with 85 percent accuracy.

Prerequisite: None

Part I is the first segment of a 90-day course in Record Keeping. Material to be covered in Part I includes the following: fundamentals of record keeping, banking, budgets, filing, and payroll.

Part II is the second segment of a 90-day course in a two part series. It includes the following areas of study: cashier records and petty cash, retail sales records, purchase records, and simulated projects.

Minimum Terminal Objectives

The student will:

I. Record Keeping for Banking

- A. Apply his/her knowledge of banking, when given relevant information, by opening a checking account, writing checks, and preparing a bank reconciliation with a minimum of 80 percent accuracy.
- B. List at least four available banking services with 100 percent accuracy.

II. Budgets

- A. Record with 100 percent accuracy in a cash book all income and expense transactions from given organizational transactions.
- B. Analyze the validity of the estimated budget with the actual budget incurred and give reasons for discrepancies.

III. Filing

- A. Apply the basic alphabetic rules of filing personal and business names by filing ten items of correspondence with 90 percent accuracy.
- B. List and define at least two methods of filing other than alphabetic.

IV. Payroll

- A. Compute from five given time cards of simple content the total hours worked and gross salary earned, with a minimum of 100 percent accuracy.
- B. Define and compute net earnings on all required deductions to be made from wages earned, with 100 percent accuracy from given gross salary earnings.

V. Cashier Records and Petty Cash

- A. List and describe at least five duties of a cashier with a minimum of 80 percent accuracy.
- B. Complete five petty cash vouchers and summarize them in a petty cash book with 80 percent accuracy from a list of given transactions.

VI. Retail Sales Records

- A. Record five cash sales on given sales slips of various styles available and compute the sales tax on each with 100 percent accuracy.
- B. List the three steps involved in opening a customer's account in a ledger with 100 percent accuracy.
- C. Post charges and payments to a customer's account and balance the account with 80 percent accuracy.

Prerequisite: Typewriting I and an average achievement in English

Part I is the first 45-day segment of a 180-day course in Shorthand I. Part I covers the correct theory of shorthand. Theory should be covered up to disjoined word endings and beginnings. Emphasis is placed on reading, spelling, and writing accurately shorthand characters, words, and sentences. Untimed dictation is practiced. Transcription on the typewriter is introduced.

Part II is the second 45-day segment in a four part series. In part II the presentation of theory of shorthand is completed. Emphasis is given to the application of theory in taking practice dictation. Punctuation rules are presented as applicable to the material being transcribed. Dictation notes are transcribed on the typewriter with the application of correct English skills.

Part III is the third 45-day segment in a four part series. In Part III, theory is reviewed. Emphasis is placed on the building of dictation as well as the transcription of dictated material, such as simple letters, reports, memos, etc., in both rough draft form and acceptable styles or formats.

Part IV is the fourth 45-day segment in a four part series. In Part IV, major emphasis is placed on the development of greater shorthand speed and transcription skills on three-minute takes and short mailable letters dictated from unfamiliar material. The application of shorthand skills, typewriting, and English skills is integrated to turn out acceptable material representative of the work of a beginning stenographer.

Minimum Terminal Objectives

The student will:

I. Employment Information

- A. List at least five personal characteristics which are desirable in a secretary.
- B. List four sources of job information and the procedures for seeking employment.

II. Shorthand Theory

- A. Apply his/her knowledge of shorthand theory by writing the correct forms to a prepared list of word beginnings and endings, brief forms, and phrases.
- B. Indicate his/her reading ability of shorthand characters by transcribing on the typewriter with 85 percent accuracy in a period of ten minutes a prepared list of ten shorthand sentences consisting of ten words each.

III. Dictation and Transcription

- A. Transcribe in proper context and format on the typewriter two mailable letters from unfamiliar, previewed material dictated at 70 words per minute at one-half his/her typing rate.
- B. Take dictation on unfamiliar, previewed material at a minimum of 70 words per minute for three minutes or 80 words per minute for two minutes and transcribe in proper context and format on the typewriter with 95 percent accuracy on shorthand, applying correct English usage to the material.

IV. English Usage

- A. Insert the correct punctuation, verbs and possessives in a given list of ten sentences in ten minutes.
- B. Use a dictionary to choose the correct spelling, definition, and division of ten words from a given list.

Prerequisites: Introduction to Business and Typewriting I

Part I is the first 45-day segment of a 180-day, double-period course in Stenography I. This part offers instruction in secretarial orientation, the introduction and study of Gregg shorthand theory and joining and writing principles, typewriting skillbuilding, and instruction in duplication processes and in the use of adding machines and calculators. The use of business machines as an aid to solving business problems involving adding, subtracting, multiplying and dividing is emphasized.

Part II is the second 45-day segment in a four part series. This part offers instruction in Gregg shorthand theory, dictation from familiar material, transcription on the typewriter, punctuation, spelling and terminology, production and skillbuilding on the electric typewriter, indexing and filing procedures for alphabetic, numeric, geographic and subject filing, and business behavior.

Part III is the third 45-day segment in a four part series. This part emphasizes dictation as a secretarial skill with continued study of shorthand vocabulary and practice in taking dictation at higher rates on new material and in transcribing. Instruction is given in handling the mail, telephone procedures, business behavior, and finding and applying for a job. Preparation for the Federal Civil Service Examination and extensive typewriting skillbuilding are emphasized as part of the unit on finding a job.

Part IV is the fourth 45-day segment in a four part series. This part is designed to give students an opportunity to bring together in a simulation project the various skills and techniques which they have learned in the first, second and third parts, and to use them to solve problems similar to those which might be encountered in a business office. Integrated dictation and three-minute takes on new material are emphasized, with continued study of shorthand vocabulary and practice in transcribing on the typewriter.

Minimum Terminal Objectives

The student will:

I. Shorthand

- A. Apply his/her knowledge of shorthand theory by writing the correct forms on a prepared list of word beginnings and endings, brief forms, and phrases.
- B. Indicate his/her reading ability of shorthand characters by transcribing on the typewriter with 85 percent accuracy in a period of ten minutes a prepared list of ten shorthand sentences consisting of ten words each.
- C. Transcribe on the typewriter and insert the correct punctuation, verbs, and possessives when given a list of ten shorthand-written sentences.

- D. Transcribe in proper context and format on the typewriter two mailable letters dictated from unfamiliar previewed material at a dictation rate of 70 words per minute and transcribed at a minimum of one-half his/her typing rate.
- E. Take dictation on unfamiliar, previewed material at a minimum of 70 words per minute for three minutes or 80 words per minute for two minutes and transcribe in proper context and format on the typewriter with 95 percent accuracy on shorthand, applying correct English usage to the material.

II. Typewriting

- A. Type a five-minute timed writing on new matter, straight-copy material at 45 gross words a minute with a maximum of seven errors.
- B. Compose and type a simple letter employing good spelling, grammar, and punctuation skills with 80 percent accuracy and proofreading with 100 percent accuracy.
- C. Type business correspondence with acceptable placement in mailable form and a maximum of five neatly corrected errors using an electric typewriter.
- D. Arrange and type in usable form from rough draft copy a table of 100 words with at least three columns including column headings, and apply appropriate techniques for making three copies using carbon paper or sets with a maximum of five corrected errors allowing 30 minutes.

III. Filing

- A. Set up, following a given list of items and criteria, an alphabetic and numeric filing system.
- B. Index, code, and arrange in 15 minutes in alphabetic order ten names from a given list.

IV. Adding and Calculating Machines

- A. Operate the ten-key adding machine allowing ten minutes to solve ten simple addition and ten subtraction problems with 100 percent accuracy using correct fingering, sub-total, non-add, and repeat keys.
- B. Operate the calculator allowing 15 minutes to solve ten simple multiplication, accumulative multiplication, three-factor multiplication or constant multiplication, and ten division problems.

V. Duplicating

- A. Prepare, correctly proofread, and run a specified number of copies of high-quality duplicated copy showing efficient operation of a minimum of one piece of equipment which is available to the classroom. The finished copy should be free of smudges, clear and correctly centered.
- B. Identify the appropriate duplicating process for a particular job when given an office assignment for the reproduction of material.

VI. Telephone Usage

- A. Respond to hypothetical descriptions of office situations using correct telephone techniques for greetings, referrals, screening, making appointments, routing and terminating calls.
- B. Select the correct type of call to be used for given situations which involve using the following:
 - 1. Station-to-station
 - 2. Person-to-person
 - 3. Direct distance dialing
 - 4. Collect
 - 5. Credit card
 - 6. Overseas
 - 7. Conference

VII. Handling Mail

- A. List four duties of the secretary in handling incoming and outgoing mail.
- B. Date, sort, and route daily mail when given the appropriate criteria.

VIII. Employment

- A. State the minimum requirements for typewriting and shorthand for the Federal Civil Service Examination.
- B. Compose and type in mailable form a letter of application from a given "want ad," a data sheet according to a given format, and an application form.
- C. List four sources of job information of the various services, including Federal Civil Service, and explain how they are used.

IX. Business Behavior

- A. List five personal characteristics which are desirable in a secretary.
- B. React to given office situations applying a knowledge of good human relations.

2 Credits

Grade 12

Stenography II (6260)

Section B

September 3, 1974

Prerequisite: Stenography I

Part I is the first 45-day segment of a 180-day, double-period course in Stenography II. This part offers instruction in the following areas: shorthand dictation and transcription; secretarial orientation; review of basic skills; and business communications.

Part II is the second 45-day segment in a four part series. This part offers instruction in the following areas: shorthand dictation and transcription; business law; machine transcription; typing; and simulated projects.

Part III is the third 45-day segment in a four part series. This part offers instruction in the following areas: shorthand dictation; data processing; elements of fiscal records; income tax; typing; employment preparation; and simulated office jobs.

Part IV is the fourth 45-day segment in a four part series. This part offers instruction in the following areas: advanced shorthand dictation and transcription; business psychology and human relations; advanced office typing; and office simulations or model office.

Minimum Terminal Objectives

The student will:

I. Shorthand

- A. Take dictation on unfamiliar, unpreviewed letter material at a minimum rate of 90 words per minute for three minutes and transcribe in mailable form at the typewriter with 95 percent shorthand accuracy at a typewriting rate of one-half his/her straight-copy rate.
- B. Take office-style dictation on conference, meeting or telephone conversation material of 150 words and transcribe in usable form applying correct punctuation, spelling, and proofreading. Fifteen minutes should be allowed for transcription.
- C. Transcribe on the typewriter and insert the correct punctuation, verbs, and possessives when given a paragraph of 150 words containing errors in the areas listed above.

II. Typewriting

- A. Type letters, memos, forms, reports, or other business communications with correct placement and all errors neatly corrected. All material should be proofread with 100 percent accuracy.
- B. Type a five-minute straight-copy timed writing at 55 words per minute with no more than eight errors.
- C. Arrange and type in mailable form from given rough-draft data a two-page letter, a meeting-agenda enclosure for the letter with two carbon copy notations and a correctly addressed envelope, allowing 45 minutes.

III. Machine Operation

- A. Transcribe from machine a letter of approximately 125 words in mailable form.
- B. Employ good transcription techniques and English usage in the transcription of recorded minutes (200 words) of a business meeting.
- C. Operate adding and calculating machines using proper fingering and special keys to solve and verify 25 problems in addition, subtraction, multiplication, and division, with 100 percent accuracy.
- D. Type a master and/or stencil using the correct duplicating process for a given business problem. Proofread and prepare the copy in usable form and run correctly.

IV. Data Processing

- A. List three applications for a computer.
- B. Summarize the difference between hardware and software.
- C. Give one function for each of the five major components in a data processing cycle (input, storage, control, logic, output).
- D. Define the following basic terms in data processing:
 - 1. Automatic data processing
 - 2. Card column
 - 3. Coding
 - 4. Data
 - 5. Field
 - 6. Input/output media
 - 7. Memory
 - 8. Program
 - 9. Source document
- E. List four data processing occupations and give one duty of each.

V. Filing

- A. Set up, following a given list of items and criteria, a geographic and subject filing system.
- B. Describe the types of records vital to the continued operation of a business which should be retained and explain the importance of immediate retrieval of those records to the operation of the business.

VI. Telephone Usage

- A. Choose from a list the best solution for handling a particular office situation in which the telephone is used.
- B. Describe the purpose of PBX, WATS line, and teletype in an office with 90 percent accuracy.

VII. Mail and Messenger Service

- A. List and define five special postal services, with 85 percent accuracy.
- B. Given a description of pieces of incoming mail, rate them as to the priorities for taking care of such correspondence by the employer.

VIII. Business Behavior

- A. Solve three situations involving human relations problems in the office that might occur during a business day, by choosing the best solution to each problem from a prepared list.
- B. Identify the personal traits or character changes that would be necessary to correct an undesirable office situation that has resulted directly from inappropriate behavior.

IX. Business Law

- A. Determine, when given a list of five simple situations each relating to one of the elements of a contract, whether the element is present or missing (80 percent accuracy).
- B. Describe the purpose of five legal forms from a given list, with 85 percent accuracy.
- C. Determine, in given situations involving office responsibilities and duties, whether he/she is or is not acting as an agent (80 percent accuracy).

X. Communication Skills

- A. Compose and type in mailable form an answer to a given piece of business correspondence in a clear, concise, and courteous manner, applying correct English usage.
- B. Choose from sentences or paragraphs the one in each case which best exhibits effective business communication for answers to specific correspondence.

XI. Income Tax and Fiscal Records

- A. Verify given data and type in accurate and usable form an average income tax problem.
- B. Make machine computations from given data and prepare a payroll register, payroll checks, and related tax forms for five people, with 100 percent accuracy.

XII. Employment Preparation

- A. Identify steps necessary to prepare for a position in a specific type of office.
- B. Analyze and interpret from a given example of a typical interview the questions and responses as they relate to both the applicant and interviewer.

1/2 Credit

Grades 10-12

Survey of Info Processing (6611)
Section B
September 3, 1974

Prerequisite: None

Part I is the first 45-day segment of a single-period, 90-day course in Survey of Information Processing. It introduces data processing and offers instruction as to the importance and evolution of computing equipment. Major topical areas include importance and uses of data, evolution and growth of data processing systems, applications of data processing, the basic data processing cycle, input/output data representation, and introduction to equipment and systems.

Part II is the second 45-day segment in a two part series. This part develops an understanding of the importance of the computer in our society, what a computer is and how it operates to satisfy our needs and wants. The purpose of this part is to provide an overview of the basic functions of computers, computer programming, and careers in data processing.

Minimum Terminal Objectives

The student will:

I. Basic Concepts

- A. Interpret the Hollerith code for alphabetic and numeric data from a punched card.
- B. Define basic terms in business data processing such as:

Address	Compiler	Master card
Alphabetic field	Console	Memory
Alphanumeric field	Core storage	9-edge
Assembler	Data	Optical character recognition (OCR)
Automatic data processing	Debug	Parity
Auxiliary storage	External storage	Program
Branching	Field	Programmer
Buffer	Flowcharting	Source document
Card column	Input/output media	Template
Cathode-ray tube	Magnetic ink character recognition (MICR)	Time sharing
OBOBOL	Mark-sensed card	12-edge
Coding		

- C. List four data processing occupations and give one responsibility of each.

II. Computing Systems

- A. List three applications of the digital computer and at least one application of the analog computer.
- B. Give one identifying characteristic for each of the three generations of computers.
- C. List and describe the function for each of the five major components of a data processing system (input, storage, control, logic, output).

- D. List two major differences between hardware and software.
- E. Define one function of computer system peripheral devices from a given list (tape drive, disk pack, drum unit, line printer, card reader, console typewriter).
- F. List three unit record machines and give one function for each.
- G. Convert ten numbers from numbering systems common to third generation computers to base ten with 80 percent accuracy.

III. Program Development Process

- A. List one major difference between a source program and an object program.
- B. Flowchart the logical steps, given a simple listing program.
- C. List four divisions of COBOL and define the function of each.

IV. Social Aspects of Computer Development

- A. Describe the effects on an individual's life caused by business organizations maintaining consumer credit data bases.
- B. Describe the impact on job employment levels in an organization caused by job routines automation.

1 Credit

Grades 10, 11, 12

Typewriting I (6151)
Section B
September 3, 1974

Prerequisite: None

Part I is the first 45-day segment of a 180-day course in Typewriting. This part includes an introduction to the keyboard and operative machine parts. Major emphasis is placed on developing correct techniques for typing and on building both speed and accuracy. Initial problem-solving assignments include tabulation mechanics, paragraph typing, proofreading, figures and symbol typing, statistical typing, setting of margins, centering of titles, and following directions.

Part II is the second 45-day segment in a four part series. This part includes drills on horizontal and vertical centering and word division. Problem-solving assignments include announcements, personal notes, centering on special-sized paper, typing from script, and aligning and typing over words. Major emphasis is placed on typing with control, which means discovery of an individual's speed range with maximum accuracy. New problem typing which is introduced includes business letters, rough draft copy, addressing envelopes, simple tabulated reports with secondary heading and columnar headings, outlines, composing at the typewriter, themes, and report manuscripts.

Part III is the third 45-day segment in a four part series. This part includes drills on technique evaluation, skill building, and skill application. Control applications should reinforce composing at the typewriter, use of operative parts, centering on standard and special-size paper, rough drafts, letter parts, outlines, tabulation and word division. Skill application activities or job tasks are on related learnings; aligning and centering; typing a manuscript of approximately three pages with footnotes, title page, and bibliography; changing ribbons and care of the typewriter; and erasing, squeezing, spreading, and correcting errors.

Part IV is the fourth 45-day segment in a four part series. This part includes application of basic typing skill in various problem and production situations to build speed and accuracy to the highest possible levels. Production typing rates will improve through gaining skill in intensive production practice on letters, reports, and tables. Emphasis is primarily devoted to the extension of knowledges and improvement of skills required in the typing of correspondence, special business forms, manuscripts, use of carbon copies, and variations in basic communication forms.

Minimum Terminal Objectives

The student will:

I. Application of Typing Techniques

- A. Identify the machine parts and their usage.
- B. Type a five-minute timing from straight-copy material at 31 words per minute with no more than ten errors.
- C. Incorporate the principles of crowding and squeezing to a given statement of incorrect copy.

II. Business Problem Solving

- A. Type a personal note of approximately 100 words from unarranged copy in block style with mixed punctuation, correcting all errors in ten minutes.
- B. Type in usable form a 100-word topical outline from arranged copy in 15 minutes, all errors corrected.
- C. Arrange and type in usable form, errors corrected, a one-page manuscript with two footnotes, allowing 30 minutes.
- D. Arrange and type in usable form, with errors corrected, an open table of 100 words (allowing 20 minutes), with at least four columns including narrow and wide columns headings.
- E. Type in usable form two letters (100 words each) with one carbon copy, correcting all errors and using the letter-placement scale allowing 30 minutes:
 - 1. Modified block with indented paragraphs, mixed punctuation, containing an attention line, subject line, and reference notation.
 - 2. Block style, open punctuation, containing a company name in closing lines, enclosure, and postscript.
- F. Type in appropriate form with all errors corrected an example of each of the second-page headings for a letter, allowing ten minutes.
- G. Address at least three large business envelopes in mailable form with special notations (air mail, personal) within ten minutes--errors corrected.
- H. Type the following in the correct form; correcting all errors, allowing 15 minutes:
 - 1. One interoffice memo of 60 words.
 - 2. Five index cards--to be arranged alphabetically.
- I. Type from rough draft in usable form a six-item bibliography, errors corrected, in 15 minutes.

III. English Usage

- A. Compose and type, correcting errors, a paragraph of 100 words in response to a given topic and proofread finished copy with 100 percent accuracy.
- B. Apply word division rules at the typewriter with 80 percent accuracy to a given list of ten words in ten minutes.
- C. Apply the rules given for capitalization, numbers and punctuation by typing correctly ten sentences containing at least ten errors violating the given rules with a minimum score of 80 percent accuracy with all typing errors corrected allowing ten minutes.

2 Credits*

Grade 12

Prerequisite: The Cooperative Office Education student must have a salable skill and a good attendance record in past school years, and must be highly recommended by subject area teachers for the cooperative work-training program. Students must have completed Typewriting I and be concurrently enrolled in Office Practice and Procedures or in one of the twelfth-grade career-oriented programs of clerk-typist, stenography, or business information processing. Before enrolling a conference with the COE coordinator is necessary.

Cooperative Office Education is a program developed through a cooperative arrangement between the school and employers in a community which allows seniors who have acquired a salable office skill in the business education department to work at the entry level as an extension of the classroom instruction. The student must work a minimum of 15 hours per week, a maximum of 28 per week.

In placing students in an office, the teacher-coordinator tries to match student abilities and skills with job requirements. The office training is planned, coordinated, and supervised by the school and the employer. The student receives two units of credit and employers usually pay the statutory minimum wage.

- * Additional credits earned by the students through course work will be dependent upon the number of periods per day they are in class. A student in a two-period course will earn two credits for the class for the year.

Minimum Terminal Objectives

The student will:

I. Personal Traits

- A. Work under pressure in the office.
- B. Demonstrate initiative and resourcefulness.
- C. Develop patterns of behavior and an attitude that will assist in succeeding and advancing in an office career.
- D. Develop the ability to meet the challenge of frequent change.

II. Skill Performance

- A. Apply to the job situation office skills and knowledges learned in the classroom.
- B. Accept responsibilities of the job and complete work assignments accurately.
- C. Increase proficiency in performing routine office tasks and duties.

III. Business Techniques

- A. Adjust to actual conditions of employment in a real office situation.
- B. Communicate effectively by oral and written means.
- C. Organize work effectively and be able to establish priorities.

PROGRAM OF STUDIES

BUSINESS EDUCATION

GRADES 9-12

SECTION C

WORKING DRAFT

FAIRFAX COUNTY PUBLIC SCHOOLS
Department of Instructional Services
Division of Curriculum Services
September 3, 1974

Contemporary Teaching Strategies for Business Education

Today's young people are facing acute competition in the business world as society changes. Some of the reasons for these changes have been brought about by new technical advances, new business procedures, international involvements, multinational corporations, and more modern office equipment. The quantity and quality of knowledge and skills the business student should have should also grow accordingly.

The scope of instruction in business education is expanding to meet new challenges and to keep pace with the radical and swift changes in the business environment. Greater emphasis is being placed on teaching conceptual skills as well as manipulative skills. Such skills include fact gathering, interpretation, problem solving, and decision making. Greater emphasis must also be placed on management ability if students are to meet requirements for job advancement.

Office workers in the general business world, as well as in highly specialized areas, must learn the basics and language of business. They must know how to accumulate and analyze data.

The teaching approaches to help students develop their maximum talents and skills must be planned. They should include a search for instructional alternatives as a way to improve the instructional process.

Psychologists agree that a motor skill is learned through perception of a stimulus. There is also wide general agreement that learning is aided by use of a wide variety of stimuli. Studies indicate that combinations of both visuals and verbal cues are more effective than individual cues.

There are several major teaching strategies used in the learning process of Business Education. These strategies may be developed through a variety of instructional approaches and teaching activities.

Definition of Instructional Approaches for Business Education

INDIVIDUAL INSTRUCTION APPROACH

Each student is treated as an individual as to his/her interests skills, and abilities. With the teacher's guidance, students select projects and activities in which they have an interest and their skills are developed to meet the objectives of the selected project or activity.

DISCOVERY APPROACH

Each student selects his/her own problem or topic for researching and reporting. The problem or topic might involve the effect of labor relations on the job by recent government regulatory actions; the possible effect of a current judicial decision on the legal rights involving landlord/tenant relations; a job study analyzing the tasks of a legal secretary; conducting or participating in surveys; debating an ecological issue; etc.

GROUP APPROACH

A number of students select a group project in which each member of the group will organize, plan, and produce ideas and work in the completion of one major study or project.

UNIT APPROACH

Classes involved in a unit approach seek answers to data concerning one particular area of thought and work and then relate this information to broader topics in the course.

SYSTEMS APPROACH

Classes using a systems approach use a group of devices in which one specific field of work is traced through each facet of its relation to the whole picture.

MULTIMEDIA APPROACH

A system in which a number of devices are utilized for instruction such as films, tapes, pacing devices, visuals, programmed instruction, records, etc.

COCURRICULAR APPROACH/FUTURE BUSINESS LEADERS OF AMERICA

A student organization made up of students taking business subjects and interested in business as a career. It endeavors to develop leadership ability in the students, student confidence, and an awareness in community service, and helps them become better citizens.

LABORATORY APPROACH

An intense environment that duplicates an actual business establishment. It is an application of previously learned knowledges and skills to an actual office environment rather than initial development for the first time.

Definition of Instructional Techniques for Business Education

INDIVIDUAL INSTRUCTION APPROACH

Repetitive Practice Technique--Drills or exercises are completed until the skill or unit is learned.

Job Instruction Sheet Technique--Detailed steps and instructions are mapped out for the student to follow in completing a unit of work.

Individually Prescribed Instruction (IPI) Technique--Students are permitted to progress at a rate commensurate with their abilities and ambitions, learning by various processes which suit their needs and preferences.

Learning Activity Package (LAP) Technique--Instructions, steps, and pictures are presented in systematic order to explain in detail a concept or skill to be learned without the teacher's direct assistance.

Homework Technique--Extra work, drills, or exercises are to be done outside of class to reinforce a learning activity.

Programed Instruction Technique--A concept is presented to the student; he/she attempts to choose a correct answer to a question concerning that concept; the student then gets immediate reward for a correct answer or explanation for an incorrect answer.

DISCOVERY APPROACH

Research Technique--Each student selects his/her own problem about which to gather information and report.

Job Studies Technique--Studying and analyzing a given job and arriving at a conclusion.

Surveys Technique--Conducting and compiling facts or figures to arrive at an answer or conclusion.

GROUP APPROACH

Large- or Small- Group Technique--Controlling the size of the group to one which will be more efficient in completing a task.

Committee Participation Technique--Forming committees which deal with specific problems or areas.

Battery Technique--Presenting ideas to the class as a whole and then allowing students to work individually on mastering the concepts presented.

Role-Playing Technique--Hypothetical but representative circumstances involving interpersonal relationships are established, and participants take roles in which they act and react spontaneously. It is a method of human interaction that involves realistic behavior in an imaginary situation.

Discussion Technique--The teacher and students present concepts and discuss the pros and cons of a particular topic. This technique may be used in all instructional areas.

UNIT APPROACH

Module Technique--A specialized unit of instruction based on time constraints, i.e., minute(s), hour(s), day(s).

Case Studies Technique--The student researches, organizes, interprets, and becomes skillful in decision making. The use of various games and exercises provides the potential secretary with experiences that are related to the actual work in the business field.

Rotation Plan Technique--Students rotate from one project to another. For instance, when a limited number of adding machines are available, some students may be doing typing assignments as the others use the machines. When the work at the adding machines is completed, both groups will exchange places.

SYSTEMS APPROACH

Project or Practice Set Techniques--One phase of work in Bookkeeping, Record Keeping, or other business subjects is studied and completed from its origin to the termination of the transaction or activity. For example, a written check would be studied and traced from its creation to its return by the bank.

Field Trip Technique--A way of learning in which students go to the actual place where they see the reality of the concepts they have been studying.

MULTIMEDIA APPROACH

The techniques used in this approach encompass as many methods and devices as are available and appropriate in achieving desired learning or changes in behavior or attitude. The following are among the techniques available:

- Demonstration
- Multi-Channel Laboratory Playback Equipment
- Films and Filmstrips
- Overhead Projection Transparencies
- Videotape Presentations
- Audio-Tutorial Slide-Tape Presentations
- Dictation-Transcription Equipment
- Record-Players
- Skill-Builder Controlled Reader
- Tape Recorders
- Chalkboard
- Slides
- Lectures
- Field Trips
- Exhibits

COCURRICULAR APPROACH/FUTURE BUSINESS LEADERS OF AMERICA

Techniques the youth organization employs to teach and facilitate learning are:

Leadership Training		
Committee Activities		
Community/School Relations		
Regional and State Contests:		
Bulletin Boards	Mr. FBLA	Scholarship Program
Exhibits	Miss FBLA	Junior Clerk-Typist
Spelling	Essays	Junior Stenographer
Parliamentary Law	Clerical	Senior Clerk-Typist
Public Speaking	Data Processing	Junior Accounting
		Senior Stenographer

LABORATORY APPROACH

Training Station, On-the-Job Training, or Cooperative Office Education (COE) Technique--Teaching correlated with instruction on the job. A training station, often defined as a downtown lab, provides an opportunity for the student to practice on the job what he/she has learned at school.

Simulation Technique--Involvement in the ongoing, daily operation of a fictionalized company. The facilities are like those seen in a real office. Simulation emphasizes group learning in which the primary relationships are between the several people in the group and wherein they learn to work together. A model office in Stenography II offers an ideal way of utilizing simulation.

Project or Practice Set Technique--Integrated tasks in which the entire working of a company is put together through representative jobs from each department of the company.

Problem-Solving Technique--A deductive method of reasoning to arrive at a solution to a given problem. A particular set of happenings in an office is presented to students. They analyze each phase of the situation and come to a conclusion as to the best solution to the situation.

Grades 9-12

Basic Business Courses

Introduction to Business
Business Economics
Business Law
Business Management

I. Strategies for Teaching and Learning

A. Instructional Approaches

1. INDIVIDUAL INSTRUCTION APPROACH

a. Individually-prescribed instruction (IPI) technique

Example: In a review of business math in introduction to business, the student will complete review problems at his/her own pace being given extra problems in areas in which he/she is having difficulty.

b. Homework technique

Example: In business economics or introduction to business, the student is assigned reading and problem-solving activities to supplement or provide preparation for class discussions or debates.

c. Individual projects technique

Example: Individual projects may be assigned in business economics where student study the stock market, buy and sell stocks, or survey different businesses in making economic decisions for the different units studied.

2. DISCOVERY APPROACH

a. Research technique

Example: The introduction to business, business law, and business management courses utilize the research technique by having students do background work in various units studied such as advertising. In an advertising unit students research the techniques of advertising, psychology, pitfalls, cost, and different mediums employed.

b. Job studies technique

Example: The business management class may use the job studies technique when an office management problem is presented to them so that they must study and analyze the problem, determine the steps to be followed, and arrive at a conclusion for the most efficient method of completing the task.

c. Surveys technique

Example: In business economics students may use surveys to find the different buying practices of families of various sizes and with incomes of different sizes and relate them to the change in their habits to cope with inflation and deflation.

3. GROUP APPROACH

a. Large-group technique

Example: Large groups in business law classes can do research on different types of cases that can be tried under criminal law.

b. Small-group technique

Example: Small groups may be utilized in business management to report on various topics, such as how to get a license to open a business.

c. Committee participation technique

Example: In business law the class may be divided into committees to inquire about specific laws concerning business so that one committee might find and consolidate information concerning civil law; another committee, criminal law; another, corporation law; and another, copy-right and patent law. Then a spokesman for each committee will present the findings of that particular committee to the entire class.

d. Battery technique

Example: In introduction to business classes the process of figuring income tax returns may be explained to the entire class as a whole, and then each student completes his/her individual income tax return or one provided.

e. Role-playing technique

Example: Students in a business management class are given a situation of a person who wishes to start his/her own business and utilize the role-playing technique in applying for a loan with the bank. In doing this such ideas are explored as the need for credit references, amount of capital required, future growth plans, etc. In introduction to business, students act out the parts of a bank worker and a person opening a checking account at a bank, showing the necessity of signature cards, etc.

4. UNIT APPROACH

a. Module technique

Example: In business law a unit on contracts is presented and one module deals with the requirements necessary to make a contract legal.

In business economics the unit on advertising places emphasis on the module of the propaganda involved in advertising, good and bad advertising practices, etc.

b. Case studies technique

Example: In business law case studies are an effective means of studying specific situations concerning business and the law so that students analyze the problem, explore the decision possibilities, and choose the best solution to the case. In business management students are presented with a business investment problem. Students discuss different ways the problem can be resolved.

c. Field trips technique

Example: In business law classes students may take a trip to the court house to see the working of the system and listen to court in session. In introduction to business students go to the mint of the Treasury Department as a part of their study of money.

d. Problem-solving technique

Example: Workbooks are utilized in introduction to business and business management classes in the examination and evaluation of existing data, drawing on past experiences and acquired knowledge, and choosing the best solution to the various problems presented.

5. MULTIMEDIA APPROACH

In all the basic business courses the following techniques may be used:

- a. Films
- b. Filmstrips with recorded presentations
- c. Overhead projection transparencies
- d. Chalkboards
- e. Speakers

6. COCURRICULAR APPROACH/FUTURE BUSINESS LEADERS OF AMERICA

In all the basic business courses the following techniques may be used:

- a. Leadership training
- b. Committee activities
- c. Community/school relations
- d. Regional and state contests
 - (1) Spelling
 - (2) Parliamentary Law
 - (3) Public Speaking
 - (4) Essays
 - (5) Bulletin Boards
 - (6) Exhibits

B. Organizational Alternatives

1. SETTING

- a. Traditional-size basic classroom.
Alternative--Large, open space with movable wall facilities.
- b. Single table and chair for each student.
Alternative--Large work tables to accommodate four or more students with stools.
- c. Access to departmental resource center and school library/resource center.
Alternative--Access to specialized subschool resource center.

2. PERSONNEL

- a. Certified teacher with a basic business endorsement.
- b. Qualified personnel with a background in business management and/or administration.

II. Suggested Units

- A. Sample Unit--Motive and Organization of Business
(Extracted from Introduction to Business Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

I. Motive and Organization of Business

- A. The Profit Motive
 - 1. Risk taking
 - 2. Production
- B. Business Ethics
 - 1. Consumer ethics
 - 2. Businessman ethics
- C. Competition
 - 1. Pure
 - 2. Monopoly
 - 3. Oligopoly
- D. Business Organization and Responsibilities
 - 1. Single proprietorship
 - 2. Partnership
 - 3. Corporation
 - 4. Cooperative
- E. Features of Our Economic System
 - 1. Free enterprise
 - 2. Private enterprise
 - 3. Private property
 - 4. Freedom-of-choice
 - a. Democracy
 - b. Socialist
 - c. Communist
 - d. Fascist

1. Give pretest (see appendix)

2. Have student discussion on questions: What is business? What does business do for our community? What is production? What's right with America?

3. Have students bring to class examples of how business serves us--phone workers, factory workers, persons working in banks, advertisements, etc.

4. Have buzz sessions in small groups to discuss ways in which early American families produced and consumed goods as compared to today's American families who now depend on businesses for production of most of the goods they consume

5. Have students write a brief report on one of the following topics: The Importance of Businesses to the Local Community, Why It's Important for Everyone To Understand Business, What/Why Risks Are Involved in Businesses, How Does the Profit Motive Affect One's Business?, Advantages and Disadvantages of Specialization

(cont. in Outline Column)

(ACTIVITIES Cont.)

6. Allow students to prepare posters depicting people engaged in production. Example: In the center of a large poster, they could paste a picture of a person using a phone, then arrange in a circle pictures of telephone lineman, executive at desk, telephone operator, serviceman, clerk who prepares bill, etc.

B. Sample Unit--Legal Aspects of Employment
(Extracted from Business Law Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

I. Contracts of Employment

A. Terms of Employment

1. Employment
2. Employer
3. Employee (vs. agent)
4. Employee (vs. independent contractor)
5. Collective bargaining

B. Kinds of Contracts

1. Oral
2. Written
3. Collective bargaining

Students should be informed that often the application for employment constitutes a written contract of employment.

C. Rights of the Employee

1. Compensation
2. Safe working conditions
3. Reasonable treatment
4. Agreed-upon duties

D. Rights of Employer

1. Obedience
2. Reasonable skills
3. Loyalty and honesty
4. Reasonable performance

E. Liability of Employer for Acts of Employees

F. Liability of Employee for His/Her Own Acts

G. Termination of the Employment Contract

1. Incorporate terms into class discussion

2. Use workbook assignments

- *  Refer to flags on page 19

3. Use selected cases

-  Refer to flags on page 21

4. Lecture and/or prepare a handout on termination of employment in Virginia

 Oral employment contracts in Virginia are considered to be "employment at will": this means that either party can terminate the contract at any time without giving a reason. Any arguments concerning the termination of an oral contract of employment in Virginia would have to be handled through a civil action. Upon termination of employment, the employer must pay the employee for all work performed. Such payment must be made on or before the date on which the employee would have been paid had he/she still been working. No employer shall
(cont. in Outline column)

*Special notes regarding subject matter or instruction have been marked with a flag to the teacher

II--III Cont. in Curriculum Guide

(ACTIVITIES cont.)

willfully prevent a former employee from obtaining another job. If he/she does he/she is guilty of a misdemeanor in Virginia

Grades 10-12

Bookkeeping/Accounting/Data Processing and Related Training Courses

Accounting
Bookkeeping
Record Keeping
Survey of Info Processing
Business Information Processing I
Business Information Processing II

I. Strategies for Teaching and Learning

A. Instructional Approaches

1. INDIVIDUAL INSTRUCTION APPROACH

a. Repetitive practice technique

Example: Problem drills for recording transactions in accounting. Use of the sorter machine in Business Information Processing I.

b. Job instruction sheet technique

Example: In bookkeeping the steps in journalizing and posting may be presented in an outline form for the student to follow in recording his/her transactions. Application of a payroll problem on a computer terminal may be used in Business Information Processing I or II.

c. Individually prescribed instruction (IPI) technique

Example: Payroll tax liability in accounting classes. In Business Information Processing II programming for a computer--teach computer language to the class as a whole; then allow each student to work individually on programming problems.

d. Learning activity package (LAP) technique

Example: Several LAPs have been designed and can be used in areas involving adding and calculating machines, flowcharting, human relations, and sorter (IBM) in the Business Information Processing I and II classes.

e. Homework technique

Example: Students will be assigned homework exercises in bookkeeping and accounting that will include the application of the material presented in class that day.

f. Programmed instruction technique

Example: In accounting and Business Information Processing I and II classes, this technique is used in the teaching of machine parts and their operations. Such machines would include the keypunch, the sorter (IBM), accounting machines (IBM), and mechanical computation machines.

2. **DISCOVERY APPROACH**

a. Research technique

Example: Interviews and readings taken from American Institute of Public Accountants may be used in accounting classes. Readings at appropriate levels from data processing trade journals and trade publications may be used in Business Information Processing I and II classes.

b. Job studies technique

Example: In Business Information Processing I and II classes a study might be conducted in the local business community to determine the specific job needs for a keypunch operator, tab equipment operators, code clerks, tape librarians, and programmers. In accounting or bookkeeping a study might be conducted to determine the specific training requirements for job entry and other course work necessary to advance to higher-level jobs for an accounts receivable clerk and a junior accountant.

c. Surveys technique

Example: In survey of info processing classes, students might survey a particular business to study the computer applications being used. An accounting class might perform job surveys to determine the educational qualifications of current employees in the various bookkeeping and accounting positions.

3. **GROUP APPROACH**

a. Large-group technique

Example: Teach in Business Information Processing I and II classes computer architecture which includes the internal parts and the functions of the computer.

b. Small-group technique

Example: Students may work in small groups in bookkeeping and accounting on special practice sets or projects to reinforce and practically apply newly learned concepts.

c. Battery technique

Example: Assign a programming problem with given test data and validate the output in Business Information Processing I and II classes by using adding and calculating machines to test the validity of the problem. In bookkeeping, the class as a whole will be given instruction on the end of the fiscal period work such as financial statements, adjusting, closing and reversing entries, and then will be given exercise problems to solve.

4. UNIT APPROACH

a. Module technique

Example: Flowcharting--show the logical steps of analyzing and executing a given business problem in a survey of info processing class.

b. Case studies technique

Example: Cases are presented in accounting and business information processing classes when students must discuss the proper attitude and conduct required of the employee.

c. Rotation plan technique

Example: In developing basic skills in accounting students are rotated on adding and calculating machines and on data processing equipment in Business Information Processing I and II because of the limited amount of equipment available.

5. SYSTEMS APPROACH

a. Project or practice set technique

Example: Both Business Information Processing II and accounting students can build and execute with a teacher-prepared project an inventory control system for the high school which includes equipment and textbooks. A commercially published practice set could also be used to enhance the teaching-learning process by involving the student as a "total worker" in a comprehensive system study.

b. Field trip technique

Example: In Business Information Processing I and II classes, students are taken to a local computer center to observe the processes involved in the center's operation.

6. MULTIMEDIA APPROACH

In all the Bookkeeping/Accounting/Data Processing and Related Training Courses, the following techniques may be used:

a. Demonstrations

- (1) Machines--computer terminal
- (2) Visual displays--pegboard payroll accounting and wiring control panels
- (3) Applications--manual and automated preparation of financial statements

b. Films

c. Filmstrips with recorded presentation

- (1) Use of adding and calculating machines
- (2) Use of data processing equipment
- (3) Programming languages

d. Overhead projection transparencies

e. Chalkboards

f. Speakers

- g. Skill-builder controlled readers
 - (1) Keypunch drills and practices
 - (2) Filing drills and practices
- h. Computer-assisted instructions
 - (1) Automated accounting
 - (2) Program maintenance
- i. Videotape presentations
 - (1) Job applications and interviews
 - (2) Human relations
- 7. COCURRICULAR APPROACH/FUTURE BUSINESS LEADERS OF AMERICA
In all the Bookkeeping/Accounting/Data Processing and Related Training Courses, the following techniques may be used:
 - a. Leadership training
 - b. Committee activities
 - c. Community/school relations
 - d. Regional and state contests
 - (1) Spelling
 - (2) Parliamentary Law
 - (3) Public Speaking
 - (4) Essays
 - (5) Bulletin Boards
 - (6) Exhibits
 - (7) Mr. FBLA
 - (8) Miss FBLA
 - (9) Junior Accounting
 - (10) Data Processing
- 8. LABORATORY APPROACH
 - a. On-the-job-training (COE) technique
Example: Students apply in actual job-entry employment the concepts that have been taught in business information processing classes.
 - b. Problem-solving technique
Example: In accounting the students will solve problems for disposing of an asset. In Business Information Processing II the students will take a computer program that is geared for a specific kind of output and modify it slightly for increased management information.
 - c. Simulation technique
Example: Unit Project--Students will solve business problems which emphasize a specific unit of study in accounting and run a problem on the data processing equipment.
Example: Practice Sets--In accounting, bookkeeping, and record keeping classes, a learning-by-doing process becomes an effective teaching technique through the use of commercially published practice sets relating to the use of specialized journals in accounting procedures for merchandising or service-oriented businesses.

Example: Remote Job-Entry Computer Terminals--In advanced business information processing classes, remote job-entry computer terminals provide a most effective media for computer interaction for developing programming techniques, accounting and management simulations, and the solving of business problems.

Example: Block-time Instruction--Business Information Processing I and II classes are composed of two class periods set aside for a vocational office education program. A comprehensive system approach is used which involves the student as a "total worker" based on a student's career goal with extensive use of integrated practice and job simulation.

B. Organizational Alternatives

1. SETTING

- a. Bookkeeping/Accounting--A traditional-size, basic classroom.

Alternative--Large, open space with movable wall facilities.

- b. Bookkeeping/Accounting--Single table and chair for each student.

Alternative--Large work tables, with stools, to accommodate four or more students.

- c. Career-Oriented Program--A large laboratory equipped with adding and calculating machines and individual tables and chairs with an adjoining fully equipped data processing machine room.

Alternative--A large classroom with access and proximity to the administrative data processing center. Classroom should be equipped with adding and calculating machines, keypunch machines, and remote job-entry computer terminal.

- d. Access to departmental resource center and school library/resource center.

Alternative--Access to specialized subschool resource center.

2. PERSONNEL

- a. Bookkeeping/Accounting--A certified teacher with an endorsement in accounting and with identifiable teacher competencies.

- b. Career-Oriented Programs--Certified teacher with a specialized endorsement in data processing, accounting and related training, with identifiable teacher competencies.

- c. Survey of Info Processing--A certified teacher with an endorsement in data processing and with identifiable teacher competencies.

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- d. Bookkeeping/Accounting--Qualified personnel with background of practical office work experience.
- e. Career-Oriented/Data Processing--Qualified personnel with a background of practical computer center work experience.

II. Suggested Units

- A. Sample Unit--Review, End of Fiscal Period Work and Simulated Project (Extracted from Bookkeeping Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

III. Review Maintenance of Cash and Merchandising Records

- A. Preparing Checks
1. Maintaining check stub records
 2. Reconciliation of bank statement
 3. Proving cash
- B. Petty Cash
1. Establishing petty cash
 2. Replenishing petty cash
- C. The Accounting Records For a Merchandising Business
1. Purchasing merchandise for cash and on account
 2. Selling merchandise for cash and on account
 3. Accounts payable
 4. Accounts receivable
 5. Merchandise inventory

1. Check pretest to determine areas of weaknesses so that individual or group assignments may be made
2. Use transparencies to review checks and stubs, bank reconciliation, recording, and posting
3. Assign appropriate reading materials in bookkeeping texts and write out the answers to the study questions, terms and cases
4. Demonstrate the steps in recording adjusting entries and closing entries

IV. End of Fiscal Period Work for Merchandising Business

- A. Adjusting Entries (worksheet optional)
1. Merchandise inventory
 2. Supplies
 3. Prepaid insurance
- B. Closing Entries (worksheet optional)
1. Income accounts
 2. Cost and expense accounts
 3. Income and expense summary account
 4. Drawing account
- C. Financial Statements
1. Balance sheet
 2. Capital statement
 3. Income statement
- D. Closing General Ledger
- E. Post-Closing Trial Balance

 If the worksheet is used, adjustments should be completed before journalizing

5. Using a ledger where all posting has been completed, have students close the general ledger

6. Using duplicated forms or workbook forms, assign problems covering the preparation of financial statements in class and check for accuracy

7. Prepare a post-closing trial balance

8. Assign simulated project on individual or group basis

V. Simulated Project

B. Sample Unit--Evolution, Growth, Uses and Application of Data
(Extrated from Survey of Information Processing Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

- | | |
|---|---|
| <p>I. Importance and Uses of Data</p> <ul style="list-style-type: none">A. History of Record KeepingB. Sources and Types of DataC. Needs for DataD. Decisions Based on DataE. Growing Complexity of Data <p>II. Evolution and Growth of Data Processing Systems</p> <ul style="list-style-type: none">A. Definition of Terms--Data, Data Processing, Technology, Automation, Etc.B. Evolution of Data Processing Systems<ul style="list-style-type: none">1. Early one-man business2. Expansion of business3. Early mechanization4. Development of office machines5. Paper tape data processing6. Development of punched card systems7. Integrated data processing8. Electronic data processing systems9. Future of data processingC. Data Processing in the Business OrganizationD. Filing Techniques for Classifying Data <p>III. Applications of Data Processing</p> <ul style="list-style-type: none">A. EngineeringB. ScienceC. StatisticsD. MilitaryE. Financial and Banking | <ul style="list-style-type: none">1. Have students answer questions selected from reference sources available2. Give lectures on the importance and uses of data3. Show NCR film, <u>Weaknesses of Unprotected Written Records</u>4. Show CBS film, <u>Computer Revolution</u>5. Use transparencies6. Hold class discussions of pertinent information7. Give lecture on evolution of data processing8. Use chalkboard to demonstrate business expansion (flowchart)9. Give lecture on filing techniques used in classifying data10. Have students prepare oral and written reports on data processing applications11. Use the film, <u>Modern Merchandise Management</u> by NCR |
|---|---|

(cont.)

B. (cont.)

OUTLINE OF CONTENT

ACTIVITIES

F. Business and Industry

1. Accounting
2. Payroll
3. Reports
4. Inventory and material control
5. Production scheduling
6. Labor distribution
7. Sales analysis
8. Market forecasting
9. Management forecasting

12. Have students answer questions selected from reference sources available

13. Hold class discussion of oral reports

14. Use other available films

IV. Basic Data Processing Cycle

- A. Collection of Data
- B. Input Preparation and Entry
- C. Processing
 1. Classifying
 2. Sorting
 3. Calculating
 4. Summarizing
- D. Storage
- E. Output

15. Give lecture on data processing cycle

16. Use teacher-made exercise to demonstrate the data processing cycle. Example: billing and sales analysis exercise

C. Sample Unit--Orientation
(Extracted from Business Information Processing I Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

- | | |
|--|---|
| <p>I. Definition of Data Processing</p> <p>A. Types of Data Processing</p> <ol style="list-style-type: none">1. Manual2. Mechanical3. Electromechanical <p>B. Why Be Concerned With Data Processing?</p> <ol style="list-style-type: none">1. Expanding population2. Complex society3. Decision making4. Worker shortage <p>II. History of Data Processing</p> <p>A. Ancient Systems</p> <p>B. Development of Manual Systems</p> <p>C. Mechanical Systems</p> <p>D. Growth of Electromechanical Systems</p> <p>III. The 80-Column Card</p> <p>A. What is a Punched-Card?</p> <p>B. Method of Recording Data on Cards</p> <p>C. Card Layout Requirements</p> <p>D. Card Design</p> <p>E. Uses of Punched-Card</p> <p>F. The Need for the Punched-Card and Punched-Card Equipment</p> <p>G. Advantages and Disadvantages of Punched-Card Equipment</p> <p>IV. Key punch System</p> <p>V. Adding Machines</p> <p>A. Ten-Key</p> <p>B. Full-Key</p> | <p>1. Give lectures on the methods of processing data, on why data processing was developed, and on why the field of data processing is expanding so rapidly</p> <p>2. Show films from Instructional Media Center to augment lectures on the definition and history of data processing</p> <p>3. Assign selected readings from reference sources</p> <p>4. Hold class discussions on highlights of studies from selected resource references</p> <p>5. Use teacher prepared and/or commercially prepared transparencies in demonstrating machines</p> <p>6. Show films on the various characteristics and use of the keypunch as it relates to the total keypunch system</p> <p>7. Give demonstrations of keypunch machine and of adding and calculating machines</p> |
|--|---|

(cont.)

C. (cont.)

OUTLINE OF CONTENT

- VI. Calculating Machines
 - A. Rotary
 - B. Visual Screen Electronic
 - C. Printing Electronic
- VII. Accounting Principles and Practices
 - A. Scope of Accounting
 - B. The Accounting Equation
- VIII. Filing Practices
 - A. Importance of Filing
 - B. Filing Procedures as They Relate to Data Processing
 - C. Information Retrieval
- IX. Business Behavior and Psychology
 - A. Human Relations in the Office
 - B. Success on the Job

ACTIVITIES

- 8. Establish a rotation plan for training students in the use of adding and calculating machines
- 9. Have students discuss the importance of understanding accounting principles as related to their use in data processing
- 10. Have students visit various offices to see properly organized library records systems and the techniques used to control their tapes, cards, and other records
- 11. Secure a guest speaker to speak on the topic of "Job Success"
- 12. Select case studies for students to analyze and make decisions on possible solutions which deal with human relations in the office

D. Sample Unit--Storage--Input/Output
(Extracted from Business Information Processing II Curriculum Guide)

OUTLINE OF CONTENT	ACTIVITIES
I. Storage--Input/Output	
A. Random and Sequential Access	1. The student will write a comprehensive paper on storage devices which will include illustrations
1. Magnetic core	
2. Magnetic disc	2. The student will give an oral report explaining the Input/Output devices
3. Magnetic drum	
4. Data cell	
5. Card random access memory	3. The students will decide what Input/Output devices would be used in specific applications in group discussions
6. Thin film	
7. Magnetic tape	
8. Punched cards	
9. Paper tape	4. The students will write critical analysis papers the methods and techniques of non-destructive storage, data transmission, and cryogenus
B. Other Input/Output Devices	
1. Data synchronizes, buffers, data channels	
2. On line typewriter	
3. Magnetic ink character recognition	
4. Optical character recognition	
5. Cathode-ray tube and light table	
6. Graph plotters	
C. Non-Destructive Storage	
D. Data Transmission	
E. Cryogenics	

Grades 11-12

Stenographic and Related Training Courses

Stenography I
Stenography II
Shorthand

I. Strategies for Teaching and Learning

A. Instructional Approaches

1. INDIVIDUAL INSTRUCTION APPROACH

a. Repetitive practice technique

Example: In shorthand and stenography classes, repetitive reading and writing of brief forms is utilized to develop automation in using brief forms in taking faster dictation.

b. Job instruction sheet technique

Example: In stenography classes, the student is given an instruction sheet for the duplicating unit and follows step by step for completing the typing, proofreading, and running off a particular job.

c. Individually prescribed instruction (IPI) technique

Example: In shorthand and stenography classes, the shorthand lab is used for the dictation of material at various speeds to meet individual needs.

d. Learning activity package (LAP) technique

Example: In the stenography classes, students are provided with a LAP with illustrations and explanations of the filing rules and examples. The student follows the procedures set forth and then uses this information to complete exercises in filing.

e. Homework technique

Example: In shorthand and Stenography I classes, students are assigned shorthand theory drills for practice outside of class so that the student is better prepared to go on with the theory presented in class the following day.

f. Programmed instruction technique

Example: Use of programmed booklets in spelling, punctuation, and English is utilized in shorthand and stenography classes to enforce students' correct application of these skills when transcribing their shorthand notes.

2. DISCOVERY APPROACH

a. Job studies technique

Example: In the stenography classes students will study and discuss the tasks and responsibilities of a receptionist.

b. Surveys technique

Example: In the stenography classes students can conduct interviews of secretaries or do research on the various equipment secretaries use and the types of activities they perform daily in local offices.

3. GROUP APPROACH

a. Large-group technique

Example: In Stenography I, the class as a whole is given a basic presentation of the proper techniques of typing and correcting a stencil.

b. Small-group technique

Example: Following a basic presentation on the stencil, the students work in small groups on the completion of a stencil and its duplication in Stenography I.

c. Battery technique

Example: Transcription techniques of typing from shorthand notes, applying correct punctuation, judging the placement of a letter by looking at their shorthand notes, etc., are explained to the whole class before individual attempts at transcription are made in shorthand and stenography classes.

d. Role-playing technique

Example: In stenography classes in practicing interviews for a job, students act out parts of the employer and the applicant and demonstrate the proper and improper way to dress, respond to questions, and conduct oneself on an interview.

4. UNIT APPROACH

a. Module technique

Example: A unit of instruction on the automation of the 100 most frequently used words in business letters may be used in shorthand and stenography classes.

b. Case studies technique

Example: In stenography classes when given a particular unpleasant office situation, the students analyze the happenings and decide the proper action to take to correct the situation and the things that could have been done to prevent this situation.

c. Rotation plan technique

Example: In stenography classes when only a limited number of machines are available, students will rotate in using the equipment so that every student will have had an opportunity to operate each different type of machine presented. Types of equipment involved in a rotation plan may include the following: transcribers, magnetic tape editing type-writer, duplicating equipment, adding and calculating machines.

5. SYSTEMS APPROACH

a. Integrated project or practice set technique

Example: In stenography classes, students may use an office-style practice set or teacher-prepared project which brings together the typing and stenographic attitudes, knowledges, and skills previously learned into a task or job.

b. Field trip technique

Example: Students in stenography classes may go to a particular office to observe in actual practice the concepts presented in class.

6. MULTIMEDIA APPROACH

In all the stenographic and related training courses the following techniques may be used:

a. Demonstrations

- (1) Machines
- (2) Visual displays
- (3) Applications

b. Films

c. Filmstrips with recorded presentations

- d. (1) Job interviews
- (2) Interpersonal relations

d. Overhead projection transparencies

e. Chalkboards

f. Speakers

g. Videotape presentations

- (1) Typewriting demonstrations
- (2) Job interviews

h. Multi-channel laboratory playback equipment

- (1) Shorthand theory practice
- (2) Shorthand dictation practice
- (3) Shorthand skill-building development

i. Audio-tutorial slide-tape presentations

j. Dictation-transcription machines

k. Record players

- (1) Special recorded filmstrip narrations
- (2) Shorthand dictation practice materials

l. Skill-builder controlled readers

- (1) Shorthand drills and practices
- (2) Filing drills and practices

m. Tape recorders

- (1) Job interviews
- (2) Telephone techniques and manners

7. COCURRICULAR APPROACH/FUTURE BUSINESS LEADERS OF AMERICA

In all the stenographic and related training courses the following techniques may be used:

a. Leadership training

b. Committee activities

c. Community/school relations

- d. Regional and state contests
 - (1) Spelling
 - (2) Parliamentary Law
 - (3) Public Speaking
 - (4) Essays
 - (5) Bulletin Boards
 - (6) Exhibits
 - (7) Mr. FBLA
 - (8) Miss FBLA
 - (9) Junior Stenographer
 - (10) Senior Stenographer
- 8. LABORATORY APPROACH
 - a. On-the-job-training (COE) technique
Example: In Stenography II classes skills and techniques learned at school are applied on the job.
 - b. Problem-solving technique
Example: In shorthand and stenography classes, when given a letter with occasional blanks, students will fill in the appropriate word that they have presumably missed in dictation in order to prepare for transcription skills.
 - c. Simulation technique
Example: Unit Project--A unit on electronic data processing as it relates to a secretary is presented in stenography classes. Such a project could be expanded to cover a simple payroll project and integrated with a unit on Elements of Fiscal Records.

Example: Integrated Project--In stenography classes a project is assigned that melds together different tasks such as taking dictation which includes financial quotations, verifying the amounts in the problem, and then transcribing the material at the typewriter.

Example: In-basket Project--In the stenography classes, the students will pick up from their "in-basket" daily office routine assignments including minimal instructions for task completion, and they must establish working priorities and will make the decisions necessary for submitting the completed work.

Example: Practice Sets--In stenography classes a learning-by-doing process becomes an effective teaching technique through the use of commercially published practice sets relating to filing activities in an office or to office-style typewriting.

Example: Block-time Instruction-- Stenography classes are composed of two class periods set aside for a vocational office education program. A comprehensive systems approach is used which involves the student as a "total worker" based on a student's career goal with extensive use of integrated practice and job simulation.

Example: Model Office--In stenography classes simulated jobs which duplicate a real office are completed in a realistic office situation when students are grouped by departments. There is continuous flow of work, decisions being made by students on work priorities, and supervision being assigned as a student responsibility.

B. Organizational Alternatives

1. SETTING

- a. A fully equipped shorthand and related training laboratory which is self-contained, designed and arranged to simulate an office environment. Individual student work stations which include a variety of office machines and equipment are provided.

Alternative--A large laboratory with individual student work stations which is adjacent to a well-equipped office machines room center.

- b. Access to departmental resource center and school library/resource center.

Alternative--Access to specialized subschool resource center.

2. PERSONNEL

- a. A certified teacher with a specialized endorsement in shorthand and related training areas with identifiable teacher competencies.
- b. Qualified personnel with a background of practical secretarial/clerical work experience.

Alternative--For large-group instruction, team teaching with qualified teachers or the use of trained paraprofessionals is an effective means for providing greater individualization of teaching approaches in stenographic and related training areas.

II. Suggested Units

- A. Sample Unit--Reinforcement of Shorthand Theory, Dictation and Transcription (Extracted from Shorthand I Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

I. Reinforcement of Shorthand Theory

- A. Denoting Unfamiliar Words
B. Reviewing Brief Forms and Phrases
C. Automatizing Most-Used Words

1. Assign appropriate shorthand homework
2. Have students read or transcribe from prepared notes

II. Dictation

- A. Speed Building on Familiar Material
1. Letters
2. Memos
3. Reports
B. Developing Endurance
C. Three-minute Takes on Unfamiliar Previewed Material
D. Takes of Short Mailable Letters from New Material

3. Have students spell, read, and practice writing new words

4. Lead drill work in automatizing most-used words

5. Dictate practice material daily to build speed (See Gregg Instructor's Handbook)

6. Use shorthand lab for dictation practice to suit individual student requirements

III. Transcription

- A. Dictation Takes
1. Three-minute unfamiliar material
2. Short mailable letters on new material
3. Oral transcription of speed-building material occasionally
B. Acceptable Format for Letters, Memos, Etc.
C. Proofreading and Error Correction
D. English Usage
1. Continued presentation of punctuation rules
2. Application of punctuation material
3. Correct spelling, word usage and division
4. Reference to secretarial handbooks and zip code directories as needed

7. Preview and dictate new material containing familiar vocabulary to meet grading standards and have students transcribe on the typewriter

8. Stress grammar usage, punctuation, word division, spelling, and vocabulary

9. Encourage students to use dictation records for building speed

10. Discuss steno Federal Civil Service Examination requirements

B. Sample Unit--Machine Transcription
(Extracted from Stenography II Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

III. Machine Transcription

- A. Machine Operation Procedure
 - 1. Machine preparation
 - 2. Correct use of machine
 - 3. Previewing special marks on indicator slip
- B. Building Basic Skill
 - 1. Practice on selected paragraphs
 - 2. Error analysis
 - 3. Transcription tips
- C. Related Learnings
 - 1. Typewriting skill
 - 2. English usage
 - 3. Proofreading
- D. Development of Transcription Skill
 - 1. Letters
 - 2. Manuscripts
 - 3. Forms and memos
- E. How the Machine is Used in an Office
 - 1. Routine dictation
 - 2. Miscellaneous instructions to the secretary
 - 3. Proceedings of meetings and conferences
 - 4. After-office-hours dictation
 - 5. Taking inventory
 - 6. Gathering notes by writers
 - 7. Recording telephone messages after office hours
 - 8. Receiving dictated belts through the mail
 - 9. Remote recording networks or PBX dictating system
 - a. Police
 - b. Hospitals

1. Assign appropriate chapters in office practice textbooks

2. Refer to manuals that accompany machines for machine operation and/or punctuation and vocabulary

3. Prepare a bulletin board using posters, pamphlets, and brochures from transcribing machine manufacturers

4. Demonstrate steps to follow in operating the machine

5. Assign selected recordings to be completed

6. Prepare for the students an instruction sheet giving directions, jobs to be completed, and teacher and student self-evaluation



For any student who has achieved proficiency in the use of the transcription machine, assign special projects which will develop skills in his/her areas of weakness



When dictating machine is available, have students dictate original responses to selected correspondence

7. Take a tour to a word processing center

C. Sample Unit--Secretarial Orientation and Business Behavior
(Extracted from Stenography II Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

I. Secretarial Orientation and Review

- A. Program Overview
 - 1. Course content
 - 2. Occupational goals
 - 3. Employment opportunities
- B. Review of Typewriter
 - 1. Makes
 - 2. Parts
 - 3. Care
- C. Establishment of Goals for Shorthand and Typing
 - 1. Review of records of previous skills
 - 2. Pretest
 - 3. Individual counseling
 - 4. Contract



It is suggested that the teacher individually counsel with the student in regard to his/her acquired skills and contract for future performance growth



The student should contract in shorthand on the basis of an increase of ten wpm by the end of each grading period. The typing contract should be based on the student's individual performance to encourage a realistic skill development

- D. Procedures and Practices
 - 1. Types of offices
 - a. Financial
 - b. General administration
 - c. Staff (personnel and public relations)
 - d. Professional
 - e. Government

1. Obtain speaker from National Secretaries Association, Washington, D. C.

2. Have currently employed students share job experiences

3. Prepare a bulletin board entitled "Professionalism Is Our Goal"

4. Use self-analysis techniques and/or motivational charts

5. Assign case studies to be discussed in class

6. Discuss etiquette as applied to the office

7. Consult with knowledgeable persons in regard to types of businesses, various departments, and organizations

8. Assign daily homework and spot-check regularly



It is recommended that throughout Steno II there be a shorthand assignment of a lesson per day regardless of the in-class instructional program

9. Use shorthand lab for speed building

(cont.)

C. (cont.)

OUTLINE OF CONTENT

- E. Business Ethics and Attitudes
 - 1. Honesty
 - 2. Integrity
 - 3. Moral judgment
 - 4. Personal philosophy
 - 5. Personal efficiency
- F. Office and Social Etiquette
 - 1. Manners
 - 2. Office housekeeping
 - 3. Social-business situations
 - 4. Problems in office behavior
 - 5. Office socials

ACTIVITIES

10. Prepare a model office using cutouts

11. Discuss the "ideal" secretary stressing the little things that "make a difference" such as keeping a supply of stamps for the boss to buy for personal correspondence

Grades 10-12

Typewriting and Related Training Courses

Beginning Typewriting
Personal Typewriting
Advanced Typewriting
Clerk-Typist I
Clerk-Typist II
Integrated Typewriting
 Stenography I
 Stenography II
Office Practice and Procedures

I. Strategies for Teaching and Learning

A. Instructional Approaches

1. INDIVIDUAL INSTRUCTION APPROACH

a. Repetitive practice technique

Example: The drills in beginning typewriting and personal typewriting are repeated until the student has mastered the touch system of the keyboard automatically.

b. Job instruction sheet technique

Example: In clerk-typist and stenography classes, a job instruction sheet is presented in outline form for the student to follow in typing and duplicating a memorandum.

c. Individually prescribed instruction (IPI) technique

Example: In beginning typewriting individual drills could be assigned to enforce technique, accuracy, or review the typing of problems in certain units.

d. Learning activity package (LAP) technique

Example: In clerk-typist and stenography classes the unit on alphabetic filing can be presented complete with instruction steps, illustrations and examples of the filing rules, and culminate with exercises applying those rules.

e. Homework technique

Example: In typewriting and related training classes students are assigned the study of word division rules and practice of dividing a given list of words in accordance with the rules.

f. Programmed instruction technique

Example: In clerk-typist, stenography, advanced typewriting, and office practice and procedures classes, this technique may be used in teaching the skills needed to operate the magnetic tape editing typewriter, the executive typewriter, or duplicating equipment. It may also be utilized through spelling or English programed booklets in all of the typewriting and related training classes.

2. DISCOVERY APPROACH

a. Job studies technique

Example: Clerk-typist classes employ the job studies technique when a payroll problem is presented so that the student must study and analyze the problem, determine the steps to be followed, and arrive at a conclusion for the most efficient method of completing the task.

b. Surveys technique

Example: In a class of Stenography II or Clerk-Typist II, students may conduct a survey of last year's graduates to get answers to questionnaires relating to the graduate's present job, whether his/her preparation has been sufficient, current office practices, etc. They then tally the results and utilize them in determining which skills and knowledges are most needed and useful in their own preparation for office work.

3. GROUP APPROACH

a. Large-group technique

Example: In beginning typewriting and personal typewriting classes, large groups consisting of as many as 90 students may receive instruction on the keyboard and on the explanation of problems, and may use the principles in practical problem application.

b. Small-group technique

Example: Once the keyboard has been taught and problems explained, students in beginning typewriting and personal typewriting classes may be brought together in small groups for individual help and to progress at a speed commensurate with their ability.

c. Battery technique

Example: In advanced typewriting, clerk-typist, office practice and procedures and stenography classes, basic problems or units requiring the use of equipment, such as duplication, may be explained to the class as a whole before each student completes the assigned problems individually.

d. Role-playing technique

Example: Students in clerk-typist and stenography classes may be assigned different roles while on the telephone unit where they have to display good office behavior and tact. In clerk-typist, stenography, and office practice and procedures classes, students can give demonstrations of what is expected on a job interview.

4. UNIT APPROACH

a. Case study technique

Example: In clerk-typist, advanced typewriting, or office practice and procedures classes, students may be presented with typical or problem business situations that they must solve through discussion. They will draw upon their knowledge of business behavior that has been taught.

b. Rotation plan technique

Example: In clerk-typist and office practice and procedures classes, the students may rotate on the adding and calculating machines, duplicating equipment, magnetic tape editing typewriter, and executive typewriters. The rotation plan is often used when there is a limited number of machines to provide initial basic training or exploration of equipment.

5. SYSTEMS APPROACH

a. Project or practice set technique

Example: Projects such as filing, office machines, and payroll procedures may be assigned in the clerk-typist and office practice and procedures classes. Beginning typewriting classes may have projects such as a manuscript. Practice sets may be assigned in clerk-typist or stenography classes to cover systems learned or in advanced typewriting to cover units such as medical, legal, or statistical typewriting.

b. Field trip technique

Example: Field trips may be taken in clerk-typist, stenography, and office practice and procedures classes to observe business office practices and to study an office system.

6. MULTIMEDIA APPROACH

In all the typewriting and related training courses, the following techniques may be used:

- a. Demonstrations
 - (1) Machines
 - (2) Applications
- b. Films
- c. Filmstrips with recorded presentations
 - (1) Office practice techniques
 - (2) Use of computational machines
- d. Overhead projection transparencies
- e. Chalkboards
- f. Speakers
- g. Videotape presentations
 - (1) Typewriting techniques
 - (2) Reproduction techniques
- h. Record players

- i. Skill-builder controlled readers
 - (1) Typewriting drills
 - (2) Filing drills
- j. Tape recorders
- k. Dictation-transcription machines
- l. Audio-tutorial slide-tape presentations
- 7. COCURRICULAR APPROACH/FUTURE BUSINESS LEADERS OF AMERICA
In all the typewriting and related training courses the following techniques may be used:
 - a. Leadership training
 - b. Committee activities
 - c. Community/school relations
 - d. Regional and state contests
 - (1) Spelling
 - (2) Parliamentary Law
 - (3) Public Speaking
 - (4) Essays
 - (5) Bulletin Boards
 - (6) Exhibits
 - (7) Mr. FBLA
 - (8) Miss FBLA
 - (9) Junior Clerk-Typist
 - (10) Senior Clerk-Typist
 - (11) Clerical
- 8. LABORATORY APPROACH
 - a. On-the-job training (COE) technique
Example: This technique may be used in conjunction with the Clerk-Typist II and Stenography II classes or office practice and procedures class to provide the opportunity to apply on the job what has been learned in the classroom.
 - b. Problem-solving technique
Example: Problems such as memos, tabulated reports, and outlines can be assigned in beginning or advanced typewriting for the student to set up and type.
 - c. Simulation technique
Example: Unit Project--In beginning typewriting and personal typewriting, a unit project would consist of the initial presentation of techniques for erasing, typing of multiple packs, and changing of type-writer ribbons.

Example: Integrated Project--In clerk-typist, stenography, and office practice and procedures classes, a project is assigned which melds together previously learned skills, knowledges, and attitudes involving the use of business math and the use of the calculator into a typing task.

- Example: In-basket Project--In the clerk-typist and stenography classes, the student will pick up from their "in-basket" daily office routine assignments including minimal instructions for task completion, and they must establish working priorities and will make the decisions necessary for submitting the completed work.
- Example: Practice Sets--In advanced typewriting and office practice and procedures classes, a learning-by-doing process becomes an effective teaching technique through the use of commercially published practice sets relating to filing activities in an office or to office-style typewriting.
- Example: Block-time Instruction--Clerk-typist and stenography classes are composed of two class periods set aside for a vocational office education program. A comprehensive systems approach is used which involves the student as a "total worker" based on a student's career goal with extensive use of integrated practice and job simulation.
- Example: Model Office--In Clerk-Typist II and Stenography II classes, simulated jobs which duplicate a real office are completed in a realistic office situation when students are grouped by departments. There is continuous flow of work, decisions being made by students on work priorities, and supervision being assigned as a student responsibility.

B. Organizational Alternatives

1. SETTING

- a. Typewriting--A fully equipped laboratory facility, which is large enough to allow for large-group instruction and flexibility of space usage.

Alternative--Traditional-size basic classroom equipped with tables, typewriters and chairs.

- b. Career-Oriented Program--A large self-contained laboratory which is designed and arranged to simulate an office environment. Individual student work stations which include a variety of office machines and equipment are provided.

Alternative--A large laboratory with individual student work stations which is adjacent to a well-equipped office machines room center.

- c. Access to departmental resource center and school library/resource center.

Alternative--Access to specialized subschool resource center.

2. PERSONNEL

- a. Typewriting--Certified teacher with an endorsement in typewriting and with identifiable teacher competencies.
- b. Career-Oriented Program--Certified teacher with a specialized endorsement in typewriting and related training with identifiable teacher competencies.
- c. Qualified personnel with a background of practical office/clerical work experience.

Alternative--For large-group instruction, team teaching with qualified teachers or the use of trained paraprofessionals is an effective means for providing greater individualization of teaching approaches in typewriting and related training areas.

II. Suggested Units

- A. Sample Unit--Problem Solving and Special Symbols
(Extracted from Typewriting I Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

IV. Special Symbols and Calculations for Initial Problem Solving

- A. Techniques
- B. Machine Manipulations--Setting Margin Stops
 - 1. 50-space line
 - 2. 60-space line
 - 3. 70-space line
- C. Introduction of Keyboard Special Symbols
- D. Speed and Accuracy
 - 1. One-minute timings
 - 2. Drills
 - a. Word- letter- and combination-response patterns
 - b. Guided writings
 - c. Dictation
 - d. Statistical copy
 - e. Rough-draft copy
 - f. Proofreading
- E. Calculations of Initial Problem Solving
 - 1. Inches converted to pica and elite
 - 2. Centering titles horizontally
 - a. Backspace key
 - b. Backspace-from-center method

- 1. Continue technique improvement activities
- 2. Have students type and compare a 50-, 60-, and 70-space line
- 3. Continue demonstration and practice activities
- 4. Continue speed and accuracy building activities
- 5. Have students type a square of characters to illustrate horizontal and vertical inches
- 6. Have students center own name, school, and date
- 7. Assign the title of a problem for students to center and type



Timed-writing material should be of 1.4 syllable intensity

B. Sample Unit--Business Letters, Tabulation, and Application Letters (Extracted from Typing I Curriculum Guide)

OUTLINE OF CONTENT

- VII. Skill Building--Five Minute Timings
- VIII. Business Letters
 - A. Special Variations
 - 1. Opening lines
 - a. Attention line
 - b. Subject line
 - 2. Second page headings
 - 3. Closing lines
 - a. Reference notations
 - b. Enclosures
 - c. Postscript
 - B. Large Envelopes
 - 1. Placement of special notations
 - 2. Placement of addresses
 - C. Carbon Copies
- IX. Tabulation Review
 - A. Open
 - 1. Leaders
 - 2. Groups
 - 3. Notes
 - B. Boxed
 - 1. Leaders
 - 2. Groups
 - 3. Notes
 - C. Ruled
 - 1. Leaders
 - 2. Groups
 - 3. Notes
- X. Three-Page Letter
- XI. Applying for Employment
 - A. Application Letter
 - B. Data Sheet
 - C. Application Forms

ACTIVITIES

- 1. Continue speed and accuracy building
- 2. Have students type mass mailings for school or PTA
- 3. Have students add to their "Letter Style Manual" a section on 2- and 3-page letters, carbon copies, and envelopes
- 4. Have students demonstrate proper techniques of correcting errors on carbon copies
- 5. Have students tabulate the words of a familiar sentence into two columns. Pupils learn to tabulate from one column to the other with fluency and it helps to avoid the typewriting of one column at a time
- 6. Discuss what takes place during an employment interview and employment tests
- 7. Discuss Civil Service requirements
- 8. Have students take an ad from the newspaper and apply for the job

C. Sample Unit--Specialized Typewriting Problems
(Extracted from Office Practice and Procedures Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

- IV. Specialized Typewriting Problems
- A. Refinement of Typewriting Skills
1. Proofreading
 2. Corrections
 3. Use of dictionary and word division
 4. Typing shortcuts
 - a. Chain feeding
 - b. Substituting one word for another
 - c. Drawing lines/boxes with a pencil
 - d. Assembling carbon packs
 - e. Pocket for typing labels
 - f. Eyejudgment for setting margins
 - g. Insert sheet for bottom-of-page typing
 - h. Writing between lines
- B. Correspondence
1. Letters (1- and 2-page)
 2. Styles
 3. Carbons (cc and bcc)
 4. Envelopes
 5. Enclosures
 6. Interoffice memos
- C. Forms
1. Purchase orders and requisitions
 2. Invoices
 3. Bill of lading
 4. Statements
- D. Tabulation
1. Tables
 2. Financial statements
 3. Within a letter
- E. Special typing
1. Art typing
 2. Justified copy
 - a. Standard electric
 - b. Executive electric
 - c. Composing typewriter
 3. Camera-ready copy

Teacher will select appropriate jobs from source material to be typed as job assignments

1. Review and explain, using transparencies if available, letter styles, forms, techniques of tabulation, and financial statements

2. Have students type at least one job for each item mentioned in outline of content

3. Have student verify rough draft of tables on adding machine and then type tables, attaching tape to typed jobs

4. Review proofreader's marks and demonstrate methods of making acceptable corrections

5. Review and explain typing shortcuts

6. Display copies of students' work on bulletin board



Prepare transparencies of actual business letters to illustrate letter styles, parts, or principles

D. Sample Unit--Filing Procedures and Records Management
(Extracted from Office Practice and Procedures Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

IV. Filing Procedures and Records Management

- A. Pretest
 - 1. Application of rules
 - 2. Types of equipment and supplies
 - 3. Records control
- B. Definition, Purpose and Need for Filing
- C. Systems of Filing
 - 1. Alphabetic
 - 2. Numeric
 - 3. Subject
 - 4. Geographic
 - 5. Chronological
- D. Basic Filing Rules and Terms for Coding, Sorting and Indexing
 - 1. Alphabetic
 - 2. Numeric
 - 3. Subject
 - 4. Geographic
 - 5. Cross-referencing
- E. Equipment and Supplies
 - 1. Color-coordinated file cabinet
 - 2. Veridex
 - 3. Labels and Fasteners
- F. Current Trend in Filing
- G. Types of Records
- H. The Information Process
 - 1. Procedures for maintaining a correspondence file
 - 2. Path of a letter
 - 3. Preparing materials for filing
 - 4. Arranging of materials in folders
- I. Common Information System
 - 1. Alphabetic filing organization, storing and systems
 - 2. Numeric filing organization, storing and systems
 - 3. Subject filing
 - a. Basic subject
 - b. Numeric subject systems
 - c. Decimal-numeric subject systems
 - 4. Geographic filing organization and process

1. Introduce unit by preparing a bulletin board showing brochures of new filing equipment and methods

2. Give pretest to determine student weaknesses

3. Review rules for filing using the EDL Skill-builder and assign exercises based on pretest results

4. Give timed exercises and drills in filing and retrieving correspondence

*  5. Include in a simulated project a list of names and organizations to see how fast the telephone numbers and ZIP codes can be located

 6. Have students develop correspondence file pulling material from the established numerical file and file alphabetically and/or geographically

* This symbol has been placed throughout the guide to indicate integrated activities

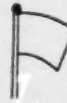
(cont.)

D. (cont.)

OUTLINE OF CONTENT

- J. Filing Equipment and Supplies
 - 1. Correspondence files
 - 2. Special filing cabinets
 - 3. Special filing supplies and accessories
- K. Records Control
 - 1. Management
 - 2. Information retrieval
 - 3. Retention
 - 4. Transfer and storage of file information
 - 5. Microfilm, microfiche and retrieval

ACTIVITIES



Have students who are employed describe the filing system used by that firm



Have a supervisor of a government agency speak to the group regarding the government filing system

7. Have students set up a filing system for classroom use

8. Discuss case problems regarding the importance of records management

E. Sample Unit--Adding and Calculating Machines
(Extracted from Clerk-Typist I Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

V. Adding and Calculating Machines

A. Review of Arithmetic Skills

1. Written pretest on mathematical principles of percentages, fractions, decimals, and terms
2. Using percent in business records
3. Computing trade and cash discounts
4. Determining the amount of commission due on commission sales
5. Computing interest rates and bank discounts
6. Computing installment charges

B. Addition and Subtraction on

1. 10-key adding machine
2. Full-key adding machine
3. Printing calculator
4. Electronic calculator

C. Multiplication

1. 10-key adding machine
2. Full-key adding machine
3. Printing calculator
4. Electronic calculator

D. Division

1. Printing calculator
2. Electronic calculator

1. Pretest and analyze students' math skills and weaknesses

2. Review math principles as necessary and make individual assignments of appropriate problems to improve students' math weaknesses

3. Discuss text material on adding and calculating machines:

- a. The use of machines in the solution of business problems
- b. The operator's need for understanding basic math and for developing skill in operating machines

4. Demonstrate adding and calculating machines, giving special attention to decimals

5. Have students, using short problems with answers showing, practice on machines

6. Build students' speed and accuracy by use of EDL Skillbuilder--five minute per period

7. Give timed drills on columns of figures
(cont. in Outline Column)

(ACTIVITIES Cont.)



8. Have students verify and type from rough draft financial statements and statistical reports, machine tape to be attached to finished job

F. Sample Unit--Telephone Training
(Extracted from Clerk-Typist I Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

V. Telephone Training and Duties of Receptionist

A. Basic Telephone Information

1. Local calls
2. Toll calls
 - a. Person-to-person
 - b. Station-to-station
 - c. Conference
 - d. Other
3. Effect of time zones
4. Types of equipment
 - a. PBX
 - b. Call director
 - c. Button phone
 - d. Data phone
5. Directories
 - a. Alphabetic
 - b. Classified
6. Special services
 - a. Information
 - b. Repair service
 - c. Time and weather information
 - d. Automatic equipment
 - e. Mobile service
7. Telephone voice
 - a. Elements of speech: tone, pitch, inflection, resonance, speed, volume
 - b. Attitudes: friendly, interested, courteous, cooperative, helpful
8. Handling calls
 - a. Incoming calls
 - (1) Promptness in answering
 - (2) Identification
 - (3) Screening calls--getting and giving information
 - (4) Transferring calls
 - (5) Getting information from employer as to his/her whereabouts
 - (6) Taking messages--office forms
 - b. Outgoing calls
 - (1) Local calls
 - (2) Toll calls--choice of service

1. Assign reading of chapters on telephone communication, equipment, and services in basic office practice texts and/or supplementary sources; discuss with students

2. Show films and discuss these with the students

3. Have students give their solutions orally to given problem situations

4. Invite a speaker from C & P Telephone Company to speak on good telephone techniques

5. Have the students prepare a bulletin board on the telephone unit

6. Give students a pre-taped message and have them follow the instructions or requests of the "caller" and prepare the necessary message

7. Have students record their voices on the tape recorder; play back; and offer suggestions for improvement

8. Have students apply correct procedures through role-playing which depict a variety of telephone problem situations using the tele-trainer or model office intercom if available

(cont.)

F. (cont.)

OUTLINE OF CONTENT

- B. Telephone Records
 - 1. Reporting on toll calls and charges
 - 2. Recording conversations
 - 3. Listing frequently called numbers
- C. Duties of the Receptionist
 - 1. Greeting callers
 - 2. Making callers welcome and comfortable
 - 3. Making appointments
 - 4. Handling unexpected callers
 - 5. Receiving, giving, and/or evaluating information; making referrals
 - 6. Keeping a visitors' and callers' log

ACTIVITIES

- 9. Have students role-play situations encountered by the receptionist
- 10. Have students maintain, type, file records pertinent to telephone calls, the employer's appointment calendar, and office callers

Grade 12

Cooperative Office Education--On-the-Job Training

Stenography II
Clerk-Typist II
Business Information Processing II
Office Practice and Procedures

I. Strategies for Teaching and Learning

A. Instructional Approaches

1. INDIVIDUAL INSTRUCTION APPROACH

a. Individually prescribed instruction (IPI) technique

- (1) Basic knowledges
- (2) Basic skills
- (3) Attitudes

b. Programed instruction technique

- (1) Developing basic skills
- (2) Developing basic knowledges

c. Related classroom instruction technique

- (1) Reinforcement
- (2) Skill proficiency development

2. COCURRICULAR APPROACH/FUTURE BUSINESS LEADERS OF AMERICA

a. Leadership training technique

b. Committee activities technique

c. Community/school relations technique

d. Regional and state contests technique

- (1) Senior Clerk-Typist
- (2) Senior Stenographer
- (3) Junior Accounting
- (4) Data Processing
- (5) Clerical
- (6) Mr. FBLA
- () Miss FBLA
- (8) Spelling
- (9) Public Speaking
- (10) Parliamentary Law

3. LABORATORY APPROACH

a. Training plans technique

- (1) Organized instruction
- (2) Correlated classroom learning with on-the-job training
- (3) Specified learning experiences on the job

b. Teacher-coordinated supervision technique

c. Training station supervision technique

d. Actual working relationships technique

B. Organizational Alternatives

1. SETTING

- a. An office with wholesome surroundings that can provide a variety of diversified training experiences commensurate with the individual student's career objective.

Alternative--An office with wholesome surroundings, with limitations for providing diversification in training experiences, but able to meet the student's career objectives.

- b. Job advancement and/or job reassignment within the company to another department with opportunity for specialized company training.

Alternative--Merit rating recognition and a pay increment.

2. PERSONNEL

- a. A school administration that is informed, involved and supportive in all aspects of the program.
- b. A teacher-coordinator should have the following qualifications:

- 1. A student-centered approach to teaching
- 2. Insight
- 3. Personal flexibility
- 4. Tendencies toward critical self-evaluation
- 5. Willingness to assume the role of counselor when necessary
- 6. Flexibility and creativity in approaching the teaching situation required
- 7. Personal dynamism
- 8. Willingness to expend effort and energy beyond the minimum required
- 9. Positive, accepting and caring attitude
- 10. High degree of administrative ability and school-community relations experience and expertise

A teacher-coordinator must have the following qualifications:

- 1. A baccalaureate degree in business education from an accredited college or a baccalaureate degree in business administration with a minimum of 12 hours of professional business education subjects
- 2. A minimum of 480 approved hours of occupational experience
- 3. Two years of successful teaching experience in business education
- 4. The personality and ability to meet and work with school personnel, parents and business leaders in the community
- 5. Teacher certification and endorsement for teaching in the stenographic, clerk-typist and office practice programs
- 6. Familiarity with business practices and employment problems for securing and maintaining the cooperation of business
- 7. Ability to get along with people and a strong desire to work with high school youth
- c. An on-the-job training supervisor should possess the following traits:
 - 1. Competency in occupation
 - 2. Ability to organize and conduct job instruction
 - 3. Personal traits and work habits which the student can emulate

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4. Ability to communicate with and relate to supervisors, co-workers, and subordinates
5. Interest in training COE students
6. Specific skills and attitudes required to work with inexperienced students
7. Willingness to work with school coordinator in planning instruction and evaluating student progress

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II. Suggested Unit--Cooperative Office Education
Sample Unit--Preparation for Employment
(Extracted from Stenography II Curriculum Guide)

OUTLINE OF CONTENT

ACTIVITIES

II. Application For A Position

A. Letter of Application

1. Letter form and content
2. Resume reviewed and typed
3. Appointment letter received
4. Interview
 - a. Personal folder
 - (1) Letter of application
 - (2) Resume
 - (3) Letters of recommendation
 - (4) Certificate of Proficiency
 - (5) Notebook and supplies
 - (6) Sample of production work
 - b. Grooming
5. Follow-up
6. Acceptance of position

Between the job interview and the job offer, it is suggested that a lapse of one week be used for counseling pertaining to anticipated employment.

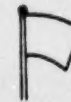
B. Business Ethics and Attitudes

1. Review of honesty, integrity, moral judgment, and personal philosophy
2. Personal-business beliefs and concepts

1. Have students compose a letter applying for a position and prepare resume



Teacher should prepare a form letter for the appointment and insert the day, time, and place



The interviewer can be a COE coordinator, member from personnel of a local business firm, C & P Telephone Co., teacher or a guidance person

2. Arrange for students to prepare a personal folder consisting of material as indicated in the content outline



A job offer can be in the form of a telephone message or formal letter and should be commensurate with office simulation positions

3. Stress ethics and attitudes in individual counseling



Each student should be counseled with suggestions pertaining to his/her strengths weaknesses, and/or handicaps and how these will relate to future success

(cont.)

(cont.)

OUTLINE OF CONTENT	ACTIVITIES
C. Interpersonal Relations	4. Assign research on content outline topics
1. Emotional conflicts	 Have cooperative office education students bring to class for discussion examples of situations applicable to human relations
a. Causes	
b. Adjustments	
2. Development of personal attributes	
a. Functionality	
b. Physical health	
c. Integrity	
d. Leadership	
e. Attitudes	
f. Resourcefulness	
3. Personal efficiency	5. Discuss the effect office situations might have on personal beliefs and concepts
a. Identifying job responsibilities	
b. Planning and organizing work	
c. Follow-up on work	
D. Psychology and Human Relations In The Office	6. Have students secure from office personnel information related to maintaining functional office conditions and make reports for class discussion
1. Human relations	
a. Personal situations	
b. Business situations	
c. Working together	
d. Hostile environment	
2. Business psychology	7. Discuss what a budget involves and the importance of using one
a. Personal problems	
b. Critical incidents	
E. Money Management	8. Have students prepare a budget related to their own income and expenses
1. Managing income	
2. Managing expenditures	
3. Organizing work	9. Prepare a bulletin board emphasizing job opportunities relating to the office simulation positions or "After Graduation--What?"
	10. Discuss case studies